Preface

For improving the existing quality of Primary Education in Bangladesh, National Curriculum and Textbook Board (NCTB) in collaboration with PEDP-2 initiated an extensive program for development of curriculum and teaching learning materials in 2002. In the light of this program the curriculum, textbooks and other teaching learning materials of Primary levels have been prepared, revised and evaluated.

The textbook entitled, 'Christian Religious Studies' has been prepared on the basis of attainable competencies for the students of Class Five. The subject matter of the textbook is derived from the basic issues of the religion familiar to the children through their family practices. This will facilitate our young learners to know how they can make best use of this religious knowledge & values in their day-to-day life.

The contents of the book are analyzed and explained in such a manner with practical examples, illustrations and system of planned activities, that students are inspired to study the subject with a keen interest.

This book is originally published in Bangla. From this year NCTB is publishing the English version of the textbook. English is the language of choice in today's globalized world. To facilitate the verbal and written communication skills of our future citizens and suitably prepare them for international competition, we decided to translate the original Bangla textbooks into English. It's pleasant to note that the number of English medium schools in Bangladesh is increasing very fast. In this context NCTB decided to publish all the textbooks of Primary level in English. This was a big endeavour for us. Despite our all efforts the first edition may not be totally error free. However, in the future editions we shall try to remove all errors and discrepancies.

Finally, I would like to express my heartfelt thanks and gratitude to those who have made their valuable contributions in writing, editing, evaluating and translating this book. I sincerely hope that the book will be useful to those for whom it has been prepared.

Prof. Md. Mostafa Kamaluddin
Chairman
National Curriculum and Textbook Board
Dhaka
<table>
<thead>
<tr>
<th>Subject Matter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count, read and write</td>
<td>1-11</td>
</tr>
<tr>
<td>Place value</td>
<td>12-16</td>
</tr>
<tr>
<td>Odd-even numbers</td>
<td>17</td>
</tr>
<tr>
<td>Comparison of numbers</td>
<td>18-22</td>
</tr>
<tr>
<td>Exercise-1</td>
<td>23-25</td>
</tr>
<tr>
<td>Addition</td>
<td>26-29</td>
</tr>
<tr>
<td>Subtraction</td>
<td>26-29</td>
</tr>
<tr>
<td>Relation between addition and subtraction</td>
<td>30-32</td>
</tr>
<tr>
<td>Exercise-2</td>
<td>33</td>
</tr>
<tr>
<td>Problems on addition and subtraction</td>
<td>34-35</td>
</tr>
<tr>
<td>Exercise-3</td>
<td>36</td>
</tr>
<tr>
<td>Multiplication</td>
<td>37-38</td>
</tr>
<tr>
<td>Exercise-4</td>
<td>48-79</td>
</tr>
<tr>
<td>Division</td>
<td>50-54</td>
</tr>
<tr>
<td>Exercise-5</td>
<td>55</td>
</tr>
<tr>
<td>Solution to Problems (Related to addition, subtraction, multiplication and division)</td>
<td>56-58</td>
</tr>
<tr>
<td>Exercise-6</td>
<td>59-60</td>
</tr>
<tr>
<td>Arithmetic symbols</td>
<td>61-62</td>
</tr>
<tr>
<td>Exercise-7</td>
<td>63-64</td>
</tr>
<tr>
<td>Bangladeshi coins and notes</td>
<td>65</td>
</tr>
<tr>
<td>Exercise-8</td>
<td>72-73</td>
</tr>
<tr>
<td>Fractions</td>
<td>74-94</td>
</tr>
<tr>
<td>Exercise-9</td>
<td>95-96</td>
</tr>
<tr>
<td>Measurement</td>
<td>97-103</td>
</tr>
<tr>
<td>Exercise-10</td>
<td>104</td>
</tr>
<tr>
<td>Time Measurement</td>
<td>105-107</td>
</tr>
<tr>
<td>Exercise-11</td>
<td>108</td>
</tr>
<tr>
<td>Uses of the calendar</td>
<td>109-110</td>
</tr>
<tr>
<td>Geometry</td>
<td>111-118</td>
</tr>
<tr>
<td>Exercise-12</td>
<td>119</td>
</tr>
</tbody>
</table>
## Number

**Count, read and write (One is done for you)**

<table>
<thead>
<tr>
<th>Picture</th>
<th>Write in tens with ten</th>
<th>Write in number</th>
<th>Write in words</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Picture" /></td>
<td>1 ten 8</td>
<td>18</td>
<td>Eighteen</td>
</tr>
<tr>
<td><img src="image2" alt="Picture" /></td>
<td>ten</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image3" alt="Picture" /></td>
<td>ten</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image4" alt="Picture" /></td>
<td>ten</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image5" alt="Picture" /></td>
<td>ten</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image6" alt="Picture" /></td>
<td>ten</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image7" alt="Picture" /></td>
<td>ten</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image8" alt="Picture" /></td>
<td>ten</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image9" alt="Picture" /></td>
<td>ten</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image10" alt="Picture" /></td>
<td>ten</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Forma-1, Mathematics, Class-3*
Form groups of tens and hundreds (One is done for you)
**Count and read**

| 1 hundred 1 | 101  
| One hundred one |  
| 1 hundred 2 | 102  
| One hundred two |  
| 1 hundred 3 | 103  
| One hundred three |  
| 1 hundred 4 | 104  
| One hundred four |  
| 1 hundred 5 | 105  
| One hundred five |  

9 tens nine and one equal to 10 tens equal to 1 hundred

\[99 + 1 = 100\]

One hundred
## Count and read

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Image" /></td>
<td>1 hundred 6</td>
<td>106 One hundred and six</td>
</tr>
<tr>
<td><img src="image2" alt="Image" /></td>
<td>1 hundred 7</td>
<td>107 One hundred and seven</td>
</tr>
<tr>
<td><img src="image3" alt="Image" /></td>
<td>1 hundred 8</td>
<td>108 One hundred and eight</td>
</tr>
<tr>
<td><img src="image4" alt="Image" /></td>
<td>1 hundred 9</td>
<td>109 One hundred and nine</td>
</tr>
<tr>
<td><img src="image5" alt="Image" /></td>
<td>1 hundred 1 ten</td>
<td>110 One hundred and ten</td>
</tr>
<tr>
<td><img src="image6" alt="Image" /></td>
<td>1 hundred 1 ten 1</td>
<td>111 One hundred and eleven</td>
</tr>
<tr>
<td><img src="image7" alt="Image" /></td>
<td>1 hundred 9 tens 9</td>
<td>199 One hundred and ninety nine</td>
</tr>
</tbody>
</table>
### Count and read

<table>
<thead>
<tr>
<th>2 hundred 5 tens and 9</th>
<th>259 Two hundred and fifty nine</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 hundred 6 tens and 8</td>
<td>568 Five hundred and sixty eight</td>
</tr>
<tr>
<td>7 hundred 9 tens and 4</td>
<td>794 Seven hundred and ninety four</td>
</tr>
<tr>
<td>8 hundred 0 ten and 9</td>
<td>809 Eight hundred and nine</td>
</tr>
</tbody>
</table>

**2 hundred**

**200**

**Two hundred**
## Count and read

<table>
<thead>
<tr>
<th></th>
<th>9 hundred 2 tens and 5</th>
<th>925 Nine hundred and twenty five</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 hundred 9 tens and 9</td>
<td>999 Nine hundred and ninety nine</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 hundred or 1 thousand</td>
<td>1000 One thousand</td>
</tr>
</tbody>
</table>
## Count and read

<table>
<thead>
<tr>
<th>Tens</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ten</td>
<td>10 Ten</td>
</tr>
<tr>
<td>2 tens</td>
<td>20 Twenty</td>
</tr>
<tr>
<td>3 tens</td>
<td>30 Thirty</td>
</tr>
<tr>
<td>4 tens</td>
<td>40 forty</td>
</tr>
<tr>
<td>5 tens</td>
<td>50 Fifty</td>
</tr>
<tr>
<td>6 tens</td>
<td>60 Sixty</td>
</tr>
<tr>
<td>7 tens</td>
<td>70 Seventy</td>
</tr>
<tr>
<td>8 tens</td>
<td>80 Eighty</td>
</tr>
<tr>
<td>9 tens</td>
<td>90 Ninety</td>
</tr>
<tr>
<td>10 tens</td>
<td>100 one hundred</td>
</tr>
</tbody>
</table>
Counting hundredwise

Count and read

<table>
<thead>
<tr>
<th>1 hundred</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 hundred</td>
<td>200</td>
</tr>
<tr>
<td>3 hundred</td>
<td>300</td>
</tr>
<tr>
<td>4 hundred</td>
<td>400</td>
</tr>
<tr>
<td>5 hundred</td>
<td>500</td>
</tr>
<tr>
<td>6 hundred</td>
<td>600</td>
</tr>
<tr>
<td>7 hundred</td>
<td>700</td>
</tr>
<tr>
<td>8 hundred</td>
<td>800</td>
</tr>
<tr>
<td>9 hundred</td>
<td>900</td>
</tr>
<tr>
<td>10 hundred</td>
<td>1000</td>
</tr>
</tbody>
</table>
# Counting Thousandwise

**Count and read**

<table>
<thead>
<tr>
<th>1 thousand</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One thousand</td>
</tr>
<tr>
<td>2 thousand</td>
<td>2000</td>
</tr>
<tr>
<td></td>
<td>Two thousand</td>
</tr>
<tr>
<td>3 thousand</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>Three thousand</td>
</tr>
<tr>
<td>4 thousand</td>
<td>4000</td>
</tr>
<tr>
<td></td>
<td>Four thousand</td>
</tr>
<tr>
<td>5 thousand</td>
<td>5000</td>
</tr>
<tr>
<td></td>
<td>Five thousand</td>
</tr>
<tr>
<td>6 thousand</td>
<td>6000</td>
</tr>
<tr>
<td></td>
<td>Six thousand</td>
</tr>
<tr>
<td>7 thousand</td>
<td>7000</td>
</tr>
<tr>
<td></td>
<td>Seven thousand</td>
</tr>
<tr>
<td>8 thousand</td>
<td>8000</td>
</tr>
<tr>
<td></td>
<td>Eight thousand</td>
</tr>
<tr>
<td>9 thousand</td>
<td>9000</td>
</tr>
<tr>
<td></td>
<td>Nine thousand</td>
</tr>
<tr>
<td>10 thousand</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td>Ten thousand</td>
</tr>
</tbody>
</table>
## Count

<table>
<thead>
<tr>
<th>Number in digits</th>
<th>Thousands</th>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
<th>Number in words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ten thousand</td>
<td>thousand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
<td>One hundred and one</td>
</tr>
<tr>
<td>109</td>
<td>1</td>
<td>0</td>
<td>9</td>
<td></td>
<td>One hundred and nine</td>
</tr>
<tr>
<td>115</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td></td>
<td>One hundred and fifteen</td>
</tr>
<tr>
<td>519</td>
<td>5</td>
<td>1</td>
<td>9</td>
<td></td>
<td>Five hundred and nineteen</td>
</tr>
<tr>
<td>1000</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>One thousand</td>
</tr>
<tr>
<td>1928</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>8</td>
<td>One thousand nine hundred and twenty eight</td>
</tr>
<tr>
<td>2379</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>9</td>
<td>Two thousand three hundred and seventy nine</td>
</tr>
<tr>
<td>4830</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>Four thousand eight hundred and thirty</td>
</tr>
<tr>
<td>7075</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td>5</td>
<td>Seven thousand and seventy five</td>
</tr>
<tr>
<td>8609</td>
<td>8</td>
<td>6</td>
<td>0</td>
<td>9</td>
<td>Eight thousand six hundred and nine</td>
</tr>
<tr>
<td>9999</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>Nine thousand nine hundred and ninety nine</td>
</tr>
<tr>
<td>10,000</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Ten thousand</td>
</tr>
</tbody>
</table>
### Read, then write in numbers and words (One is done for you)

<table>
<thead>
<tr>
<th>Number in digits</th>
<th>Thousands</th>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
<th>Number in words</th>
</tr>
</thead>
<tbody>
<tr>
<td>5739</td>
<td></td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>Five thousand seven hundred and thirty nine</td>
</tr>
<tr>
<td>425</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1640</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3333</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4270</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6085</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9601</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Read and write in numerals (One is done for you)

<table>
<thead>
<tr>
<th>Number in words</th>
<th>Thousands</th>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
<th>Number in numerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two thousand seven hundred and eighty nine</td>
<td>2</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>2789</td>
</tr>
<tr>
<td>Three hundred and eighty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eight hundred and five</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One thousand nine hundred</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four thousand and seventy five</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seven thousand three hundred and forty two</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eight thousand and eighty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nine thousand nine hundred and ninety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ten thousand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Place Value

Write numbers by looking at the pictures (One is done for you) | Write the place value (One is done for you)
---|---
![Tens Ones 6 5](image) | ![Tens Ones 6 9](image) 9 Ones = 9 6 Tens = 60

Look at the numbers below and write the numerals in the spaces for tens and ones (One is done for you)

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>4</td>
</tr>
<tr>
<td>52</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td></td>
</tr>
</tbody>
</table>

Tens Ones

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>91</td>
<td></td>
</tr>
<tr>
<td>87</td>
<td></td>
</tr>
<tr>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>
## Elementary Mathematics

### Place Value

<table>
<thead>
<tr>
<th>Hundred</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

H T O (H=Hundreds, T=Tens, O=Ones)

- 3 ones = 3
- 6 tens = 60
- 5 hundred = 500

<table>
<thead>
<tr>
<th>Thousand</th>
<th>Hundred</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Th H T O (Th = thousand)

- 0 ones = 0
- 0 tens = 0
- 0 hundred = 0
- 1 thousand = 1000

<table>
<thead>
<tr>
<th>Thousand</th>
<th>Hundred</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Th H T O

- 1 ones = 1
- 1 tens = 10
- 1 hundred = 100
- 1 thousand = 1000

<table>
<thead>
<tr>
<th>Thousand</th>
<th>Hundred</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>0</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

Th H T O

- 7 ones = 7
- 5 tens = 50
- 0 hundred = 0
- 9 thousand = 9000

<table>
<thead>
<tr>
<th>Thousand</th>
<th>Hundred</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

L Th H T O (L = Lac)

- 0 ones = 0
- 0 tens = 0
- 0 hundred = 0
- 1 thousand = 10000
- 1 -- = 10 thousand

**Examples:**

- Five hundred six tens three ones = 5 hundred 6 tens 3 ones = 563
- 1 thousand or 1 = 1000
- 1 thousand 1 hundreds 1 tens 1 ones = 1 thousand 1 hundred 1 ten 1 = 1111
- 9 thousand 0 hundreds 5 tens 7 ones = 9 thousand 0 hundred 5 ten 7 = 9057
- 1 --? = 10 thousand = 10000

**Diagram:***

- Hundreds
- Tens
- Ones
- Thousands
- Hundreds
- Tens
- Ones
- Hundreds
- Tens
- Ones
## Place Value

<table>
<thead>
<tr>
<th>Write down the numbers by looking at the pictures (One is done for you)</th>
<th>Write down the place value (One is done for you)</th>
</tr>
</thead>
</table>
| ![Abacus](image1) 7406 | Th H T O  
5 0 9 2  
2 ones = 2  
9 tens = 90  
0 hundred = 0  
5 thousand = 5000 |
| ![Abacus](image2) | Th H T O  
3 8 5 1  |
| ![Abacus](image3) | Th H T O  
6 2 0 9  |
| ![Abacus](image4) | Th H T O  
7 1 6 5  |
| ![Abacus](image5) | Th H T O  
9 9 8 9  |
# Place Value

<table>
<thead>
<tr>
<th>-</th>
<th>Thousand</th>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
<th>Number in words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>One</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0</td>
<td>Ten</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0</td>
<td>One hundred</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0</td>
<td>One thousand</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Ten thousand</td>
</tr>
</tbody>
</table>

Example 1. Find out the place value of each of the numerals of the number 7943.

7 9 4 3

Place value of 3 = 3 ones = 3
Place value of 4 = 4 tens = 40
Place value of 9 = 9 hundred = 900
Place value of 7 = 7 thousand = 7000

Example 2. Find out the place value of each of the numerals of the number 8025.

8 0 2 5

Place value of 5 = 5 ones = 5
Place value of 2 = 2 tens = 20
Place value of 0 = 0 hundred = 0
Place value of 8 = 8 thousand = 8000
# Find out the place value (Two are done for you)

<table>
<thead>
<tr>
<th>Number</th>
<th>Place value of 9</th>
<th>Place value of 2</th>
<th>Place value of 5</th>
<th>Place value of 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>8529</td>
<td>9</td>
<td>20</td>
<td>500</td>
<td>8000</td>
</tr>
<tr>
<td>5947</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>694</td>
<td>4</td>
<td>90</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>4806</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9705</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8092</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9864</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2987</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Instructions:**
- Fill in the missing values for each number.
- Remember to consider the place value of each digit.

**Example:**
- For the number 8529, the place value of 9 is 9, the place value of 2 is 20, the place value of 5 is 500, and the place value of 8 is 8000.
Odd and Even numbers

<table>
<thead>
<tr>
<th>Even Numbers</th>
<th>Odd Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>10, 32, 54, 76, 98</td>
<td>21, 43, 55, 67, 89</td>
</tr>
<tr>
<td>In the ones columns of these numbers, there are 0, 2, 4, 6, 8. So, if there are 0, 2, 4, 6 or 8 in the ones columns of any numbers those are called even numbers.</td>
<td>In the ones columns of the numbers, there are 1, 3, 5, 7, 9. So, if there are 1, 3, 5, 7 or 9 in the ones columns of any numbers, then those are odd numbers.</td>
</tr>
</tbody>
</table>

Write the odd and the even numbers separately in the empty boxes from the numbers below (one is done for you)

<table>
<thead>
<tr>
<th>Number</th>
<th>Even Number</th>
<th>Odd Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>116, 223, 425, 356, 237, 430, 278, 409</td>
<td></td>
<td></td>
</tr>
<tr>
<td>609, 708, 534, 463, 612, 615, 727, 790</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1020, 1042, 1045, 1057, 2131, 3134, 3336, 2223</td>
<td></td>
<td></td>
</tr>
<tr>
<td>809, 970, 4336, 5127, 6241, 6565, 5798</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7001, 7203, 7310, 5436, 905, 938, 6292, 10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3572, 5718, 4679, 791, 8843, 9992, 4445, 97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Comparison of Numbers

<table>
<thead>
<tr>
<th>Determine greater/smaller numbers and write them using signs</th>
<th>Between two numbers of two numerals, that number is greater which contains greater numbers in tens.</th>
</tr>
</thead>
<tbody>
<tr>
<td>78 = 7 tens 8</td>
<td></td>
</tr>
<tr>
<td>61 = 6 tens 1</td>
<td></td>
</tr>
<tr>
<td>∴ 78 is Greater, 61 is smaller</td>
<td></td>
</tr>
<tr>
<td>or, 78 &gt; 61; &gt; Greater sign</td>
<td></td>
</tr>
<tr>
<td>Rules for reading : 78 is Greater than 61.</td>
<td></td>
</tr>
<tr>
<td>Again, it can be written like this.</td>
<td></td>
</tr>
<tr>
<td>61&lt;78; &lt; smaller sign</td>
<td></td>
</tr>
<tr>
<td>Rules for reading : 61 is smaller than 78</td>
<td></td>
</tr>
<tr>
<td>94 = 9 tens 4</td>
<td>If the numerals in tens of two numbers are equal, then the number having the smaller numerals in ones is smaller.</td>
</tr>
<tr>
<td>98 = 9 tens 8</td>
<td></td>
</tr>
<tr>
<td>∴ 94 smaller, 98 is greater</td>
<td></td>
</tr>
<tr>
<td>or, 94 &lt; 98</td>
<td></td>
</tr>
<tr>
<td>100 = 10 tens</td>
<td>A number of three digits is greater than any number of two digits.</td>
</tr>
<tr>
<td>99 = 9 tens 9</td>
<td></td>
</tr>
<tr>
<td>∴ 100 is greater, 99 is smaller</td>
<td></td>
</tr>
<tr>
<td>or, 100 &gt; 99</td>
<td></td>
</tr>
<tr>
<td>475 = 4 hundred 7 tens 5</td>
<td>If the numerals in hundred are the same then the number containing greater digit in tens is greater.</td>
</tr>
<tr>
<td>459 = 4 hundred 5 tens 9</td>
<td></td>
</tr>
<tr>
<td>∴ 475 is greater, 459 is smaller</td>
<td></td>
</tr>
<tr>
<td>or, 475 &gt; 459</td>
<td></td>
</tr>
</tbody>
</table>
# Comparison of Numbers

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
</table>
| 147 = 1 hundred 4 tens 7 148 = 1 hundred 4 tens 8 | **If the numerals in hundred and tens are the same then the number having the greater digit in ones is greater.**  
\[ 147 \text{ is smaller, } 148 \text{ is greater} \]  
\[ \text{or, } 147 < 148 \] |
| 801 = 8 hundred 0 tens 1 699 = 6 hundred 9 tens 9 | **Between the two numbers of three digits, the number which contains the greater digits in the hundred is greater.**  
\[ \therefore 801 \text{ is greater, } 699 \text{ is smaller} \]  
\[ \text{or, } 801 > 699 \] |
| 8725 = 8 thousand 7 hundred 2 tens 5 9878 = 9 thousand 8 hundred 7 tens 8 | **Between the two numbers of four digits, the number which contains the greater digit in the thousands is greater.**  
\[ \therefore 8725 \text{ is smaller, } 9878 \text{ is greater} \]  
\[ \text{or, } 8725 < 9878 \] |
| 6789 = 6 thousand 7 hundred 8 tens 9 6776 = 6 thousand 7 hundred 7 tens 6 | **If the digits in thousands are the same then the greater or smaller is to be determined by the digits in hundred tens and ones.**  
\[ \therefore 6789 \text{ is greater, } 6776 \text{ is smaller} \] |
| 10000 = 10 thousand 9999 = 9 thousand 9 hundred 9 tens 9 | **Between the two numbers if one is of five digits and the other is of four digits, then the number of five digits is always greater.**  
\[ \therefore 10000 \text{ is greater, } 9999 \text{ is smaller} \]  
\[ \text{or, } 10000 > 9999 \] |
**Determine greater/smaller numbers and write them using signs (three are done for you)**

<table>
<thead>
<tr>
<th>Numbers</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>207, 211</td>
<td>207 &lt; 211</td>
</tr>
<tr>
<td>207 is smaller, 211 is greater</td>
<td></td>
</tr>
<tr>
<td>289, 283</td>
<td>289 &gt; 283</td>
</tr>
<tr>
<td>289 is greater, 283 is smaller</td>
<td></td>
</tr>
<tr>
<td>790, 892</td>
<td>892 &gt; 790</td>
</tr>
<tr>
<td>892 is greater, 790 is smaller</td>
<td></td>
</tr>
<tr>
<td>301, 299</td>
<td>greater, smaller</td>
</tr>
<tr>
<td>3452, 3500</td>
<td>lesser, greater</td>
</tr>
<tr>
<td>4571, 4671</td>
<td>greater, smaller</td>
</tr>
<tr>
<td>6789, 7790</td>
<td>greater, smaller</td>
</tr>
<tr>
<td>7028, 7038</td>
<td>smaller, greater</td>
</tr>
<tr>
<td>8109, 8099</td>
<td>smaller, greater</td>
</tr>
<tr>
<td>9909, 9999</td>
<td>greater, smaller</td>
</tr>
<tr>
<td>6006, 6077</td>
<td>smaller, greater</td>
</tr>
</tbody>
</table>
### Arranging Numbers in Order

**Ordering from greater to smaller and from smaller to greater**

<table>
<thead>
<tr>
<th>Numbers</th>
<th>From Greater to Smaller</th>
</tr>
</thead>
</table>
| 88, 59, 76, 91 | Here, 91 is greater, 88 is smaller  
88 is greater, 76 is smaller  
76 is greater, 59 is smaller  
\[ \therefore 91 > 88 > 76 > 59 \] |
| 88, 59, 76, 91 | Here, 59 is smaller, 76 is greater  
76 is smaller, 88 is greater  
88 is smaller, 91 is greater  
\[ \therefore 59 < 76 < 88 < 91 \] |
| 340, 356, 389, 346 | Here, 389 is greater, 356 is smaller  
356 is greater, 356 is smaller  
346 is greater, 340 is smaller  
\[ \therefore 389 > 356 > 346 > 340 \] |
| 340, 356, 389, 346 | Here, 340 is smaller, 346 is greater  
346 is smaller, 356 is greater  
356 is smaller, 389 is greater  
\[ \therefore 340 < 346 < 356 < 389 \] |
| 781, 692, 835, 901, 792 | Here, 901 is greater, 385 is smaller  
835 is greater, 792 is smaller  
792 is greater, 781 is smaller  
781 is greater, 692 is smaller  
\[ \therefore 901 > 835 > 792 > 781 > 692 \] |
| 781, 692, 835, 901, 792 | Here, 692 is smaller, 781 is greater  
781 is smaller, 792 is greater  
792 is smaller, 835 is greater  
835 is smaller, 901 is greater  
\[ \therefore 692 < 781 < 792 < 835 < 901 \] |
**Arrangement of Numbers in Order.**
Arrange the numbers from greater to smaller and from smaller to greater. (One is done for you)

<table>
<thead>
<tr>
<th>Numbers</th>
<th>From greater to smaller</th>
<th>From smaller to greater</th>
</tr>
</thead>
<tbody>
<tr>
<td>91, 78, 99, 70, 66</td>
<td>99, 91, 78, 70, 66</td>
<td>66, 70, 78, 91, 99</td>
</tr>
<tr>
<td></td>
<td>99&gt;91&gt;78&gt;70&gt;66</td>
<td>66&lt;70&lt;78&lt;91&lt;99</td>
</tr>
<tr>
<td>677, 777, 690, 791, 760</td>
<td></td>
<td></td>
</tr>
<tr>
<td>409, 496, 460, 480, 491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>699, 791, 889, 691, 776</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99, 81, 77, 100, 107, 103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>875, 760, 870, 799, 800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>499, 509, 480, 600, 700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>600, 802, 714, 799, 607</td>
<td></td>
<td></td>
</tr>
<tr>
<td>999, 899, 890, 799, 900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>599, 590, 600, 670, 672</td>
<td></td>
<td></td>
</tr>
<tr>
<td>779, 680, 791, 699, 709</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Exercise 1

1. **Look at each row, count the dots and write the numbers.**

<table>
<thead>
<tr>
<th></th>
<th>in numbers</th>
<th>in words</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Green dots]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>![Red dots]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>![Blue dots]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>![Green dots]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Write the numbers from 105 to 160 ascending order.
3. Read the numbers below and write in numerals in the empty boxes.

<table>
<thead>
<tr>
<th>2 hundred 5 tens 9</th>
<th>7 thousand 7 hundred 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 hundred 3 tens</td>
<td>5 thousand 5 hundred 5 tens 5</td>
</tr>
<tr>
<td>9 hundred 8</td>
<td>8 thousand</td>
</tr>
<tr>
<td>1 thousand 4 hundred 7 tens 1</td>
<td>9 thousand 3 hundred 4</td>
</tr>
<tr>
<td>3 thousand 9 tens</td>
<td>9 thousand 9</td>
</tr>
</tbody>
</table>

4. Write in numerals:
   - One hundred and two, Eight hundred and ninety, Nine hundred and six,
   - Three thousand five hundred and thirty two, Seven thousand and eighty four, Five thousand four hundred and nineteen, Eight thousand eight hundred and eighty eight, Six thousand and one, Nine thousand and ninety, Ten thousand
5. Write in words:
   202, 543, 960, 1369, 3095, 5807, 6666, 7950, 8009, 9070

6. Fill in the boxes:
   a. 10, 20, □□□, □□□, 60, □□□, 80, □□□ 100
   b. 100, □□□, 300, 400, □□□□□□ 700, □□□□□□□□□ 1000
   c. 1000, □□□, □□□, 4000, 5000, □□□, □□□
      □□□ 9000, □□□

7. Fill in the boxes and write down the place value of the numbers below: (one is done for you)

<table>
<thead>
<tr>
<th>5367</th>
<th>6753</th>
<th>7536</th>
<th>3675</th>
</tr>
</thead>
</table>
   Place value of 7 = □□ □□ 700 □□ 7000 □□ □□ 70
   Place value of 6 = □□□ □□□ □□□ □□□
   Place value of 5 = □□□ □□□ □□□ □□□
   Place value of 3 = □□□ □□□ □□□ □□□

8. Put a circle in the appropriate number: (one is done for you)
   a. Which number does have 3 in its tens? 453, 391, 732
   b. Which number does have 5 in its thousand? 9250, 7536, 5129
   c. Which number does have 9 in its ones? 6219, 9126, 2691
   d. Which number does have 1 in its hundred? 8601, 6190, 1432
   e. Which number does have 7 in its tens? 4670, 7203, 6715
9. Write down the numbers that go before and after the given numbers in the boxes:

499   ;   578   ;
705   ;   900   .

10. Find out the greater/smaller number from the pairs below:

365, 356; 834, 921; 2485, 2396;
5298, 6189; 7009, 9007; 8000, 7999;

11. Arrange the numbers from greater to smaller and from smaller to greater:

a. 432, 428, 565, 605, 342
b. 702, 720, 699, 996, 969
c. 583, 848, 584, 398, 839
d. 3670, 3706, 4021, 4210, 3999

12. Separate the odd and the even numbers and then, write them from smaller to greater:

384, 495, 999, 2530, 4268, 3597
6092, 7381, 8643, 9776

13. Put the greater/smaller signs in the boxes below:

a. 463  436  b. 800  809
   c. 2532 2352  d. 5899  6000
   e. 3609 3906  e. 4000
   f. 8990 9899  f. 9099
## Addition

### Add (without carrying)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>3 tens 4</td>
</tr>
<tr>
<td>+23</td>
<td>+ 2 tens 3</td>
</tr>
<tr>
<td>57</td>
<td>5 tens 7</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>1 ten 4</td>
</tr>
<tr>
<td>32</td>
<td>3 tens 2</td>
</tr>
<tr>
<td>+53</td>
<td>+ 5 tens 3</td>
</tr>
<tr>
<td>99</td>
<td>9 tens 9</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>602</td>
<td>6 hundred 0 ten 2</td>
</tr>
<tr>
<td>154</td>
<td>1 hundred 5 tens 4</td>
</tr>
<tr>
<td>+230</td>
<td>+ 2 hundred 3 tens 0</td>
</tr>
<tr>
<td>986</td>
<td>9 hundred 8 tens 6</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1021</td>
<td>1 thousand 0 hundred 2 tens 1</td>
</tr>
<tr>
<td>3202</td>
<td>3 thousand 2 hundred 0 ten 2</td>
</tr>
<tr>
<td>143</td>
<td>1 hundred 4 tens 3</td>
</tr>
<tr>
<td>+4430</td>
<td>4 thousand 4 hundred 3 tens 0</td>
</tr>
<tr>
<td>8796</td>
<td>8 thousand 7 hundred 9 tens 6</td>
</tr>
</tbody>
</table>

365 + 34

= 3 hundred 6 tens 5+3 tens 4
= 3 hundred 9 tens 9
= 399

4031 + 41 + 1906

= 4 thousand 0 hundred 3 tens 1 + 4 tens 1 + 1 thousand 9 hundred 0 ten 6
= 5 thousand 9 hundred 7 tens 8
= 5978
### Add

<table>
<thead>
<tr>
<th></th>
<th>54</th>
<th>402</th>
<th>42</th>
<th>1007</th>
<th>63 + 36 = 99</th>
</tr>
</thead>
<tbody>
<tr>
<td>+45</td>
<td>+397</td>
<td>613</td>
<td>3450</td>
<td>721 + 12 + 100 = 833</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>799</td>
<td>+200</td>
<td>2021</td>
<td>4021 + 305 + 1452 = 5778</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>855</td>
<td>+3520</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9998</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>42</th>
<th>50</th>
<th>60</th>
<th>24 + 43 =</th>
</tr>
</thead>
<tbody>
<tr>
<td>+24</td>
<td>+24</td>
<td>+39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>641</td>
<td>310</td>
<td>413</td>
<td>402 + 396 =</td>
<td></td>
</tr>
<tr>
<td>+256</td>
<td>+421</td>
<td>+264</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>260</td>
<td>429</td>
<td>529 + 40 =</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>107</td>
<td>360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+41</td>
<td>+321</td>
<td>+100</td>
<td>24 + 42 + 13 =</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>3021</td>
<td>2104</td>
<td>340 + 103 + 41 =</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>2405</td>
<td>1540</td>
<td>501 + 48 + 350 =</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>+3272</td>
<td>3202</td>
<td>32 + 21 + 32 + 14 =</td>
<td></td>
</tr>
<tr>
<td>+13</td>
<td></td>
<td></td>
<td>2041 + 3425 + 2130 =</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4102 + 1534 + 2051 =</td>
<td></td>
</tr>
</tbody>
</table>

### Add (with carrying)

- **45** + 4 tens 5
- **+27** + 2 tens 7
- **72** + 6 tens 12
- = 7 tens 2
- = 72
### Elementary Mathematics

#### Addition Problems

<table>
<thead>
<tr>
<th>78 + 5</th>
<th>437 + 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 15 (\Rightarrow) 1 tens 5</td>
<td>+ 172 (\Rightarrow) 1 hundred 7 tens 2</td>
</tr>
<tr>
<td>93 (\Rightarrow) 8 tens 13</td>
<td>874 (\Rightarrow) 7 hundred 16 tens 14</td>
</tr>
</tbody>
</table>

\[= 9\text{ tens 3} = 93\]

\[= 7\text{ hundred 17 tens 4} = 874\]

\[= 8\text{ hundred 7 tens 4}\]

---

<table>
<thead>
<tr>
<th>96 + 89</th>
<th>65 + 37</th>
</tr>
</thead>
<tbody>
<tr>
<td>= 9\text{ tens 6} + 8\text{ tens 9}</td>
<td>+ 879</td>
</tr>
<tr>
<td>= 17\text{ tens +15}</td>
<td>= 452</td>
</tr>
</tbody>
</table>

\[= 18\text{ tens 5} = 185\]

\[= 88 + 77 = 165\]

\[= 148 + 561 + 67 = 776\]

---

#### Add (with Carrying)

<table>
<thead>
<tr>
<th>49</th>
<th>76</th>
<th>89</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 63</td>
<td>+ 67</td>
<td>+ 98</td>
</tr>
<tr>
<td>450</td>
<td>387</td>
<td>572</td>
</tr>
<tr>
<td>+ 368</td>
<td>+ 508</td>
<td>+ 489</td>
</tr>
<tr>
<td>147</td>
<td>350</td>
<td>508</td>
</tr>
<tr>
<td>282</td>
<td>407</td>
<td>490</td>
</tr>
<tr>
<td>+ 306</td>
<td>+ 284</td>
<td>+ 373</td>
</tr>
</tbody>
</table>

\[= 35 + 46 =\]

\[= 57 + 44 =\]

\[= 68 + 52 =\]

\[= 124 + 238 =\]

\[= 480 + 367 =\]

\[= 204 + 386 + 42 =\]

\[= 382 + 268 + 100 =\]
<table>
<thead>
<tr>
<th></th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>1 thousand</th>
<th>2 hundred</th>
<th>3 tens 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>2 thousand</td>
<td>3 hundred</td>
<td>1 tens 4</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

= 3 thousand 11 hundred 12 tens 11
= 3 thousand 11 hundred 13 tens 1
= 3 thousand 12 hundred 3 tens 1
= 4 thousand 2 hundred 3 tens 1
= 4231

<table>
<thead>
<tr>
<th></th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>3 thousand</th>
<th>4 hundred</th>
<th>2 tens 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>3 thousand</td>
<td>3 hundred</td>
<td>6 tens 7</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>1 thousand</td>
<td>3 hundred</td>
<td>8 tens 2</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>8</td>
<td>2</td>
<td>1 thousand</td>
<td>6 hundred</td>
<td>4 tens 6</td>
</tr>
<tr>
<td>+1</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>8 thousand</td>
<td>16 hundred</td>
<td>20 tens 20</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>= 8 thousand</td>
<td>16 hundred</td>
<td>22 tens 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>= 8 thousand</td>
<td>18 hundred</td>
<td>2 tens 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>= 9 thousand</td>
<td>8 hundred</td>
<td>2 tens 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>= 9820</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 4523  | 1064 |
| 1768  | 2507 |
| +3254 | 4875 |
| 9545  | +1439|
|       | 9885 |

1426 + 2035 + 4782 = 8243
2407 + 885 + 1646 = 4938
2046 + 3807 + 1682 = 7535
275 + 86 + 1000 + 5608 = 6969

| 367   | 402  | 684  |
| 742   | 396  | 176  |
| +176  | +427 | +453 |
| 461   | 4321 | 832  |
| 689   | 2687 | 5426 |
| 247   | 1754 | 1374 |
| +21   |      | +476 |

203 + 456 + 387 =
515 + 277 + 190 =
4560 + 3809 =
4523 + 4280 + 307 =
1460 + 3287 + 4789 =
245 + 378 + 469 + 3871 =
# Subtraction

<table>
<thead>
<tr>
<th>65</th>
<th>6 tens 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>4 tens 1</td>
</tr>
<tr>
<td>24</td>
<td>2 tens 4</td>
</tr>
</tbody>
</table>

766 7 hundred 6 tens 6 Here, 766 subtraction
423 4 hundred 2 tens 3 423 to be subtracted
343 3 hundred 4 tens 3 343 remainder
     = 343

876 subtraction
   _514 to be subtracted
     362 remainder

508–304
=  5 hundred 0 tens 8 – 3 hundred 0 tens 4
=  2 hundred 0 tens 4
= 204

<table>
<thead>
<tr>
<th>857</th>
<th>735</th>
<th>1649</th>
<th>8765</th>
</tr>
</thead>
<tbody>
<tr>
<td>613</td>
<td>214</td>
<td>317</td>
<td>4321</td>
</tr>
<tr>
<td>244</td>
<td>521</td>
<td>1332</td>
<td>4444</td>
</tr>
</tbody>
</table>

563 – 241 = 322
795 – 412 = 383
962–530 = 432

684 subtraction
   _341 to be subtracted
     remainder
     897

Here, 897 _____
   _435
     435 _____
     remainder _____

789 – 406 = _____, here,
968 ? 510 = _____, here,
Subtract (with carrying)

53  5 tens 3
- 24  - 2 tens 4
  29  2 tens 9
= 29

The 3 the ones of subtraction is greater than the 4 in the ones of the number to be subtracted.

Explanation: 4 of ones to be subtracted is greater than 3 of ones of subtraction. So we cannot subtract 4 from 3. A bundle of tens of subtraction has been opened. In this there are 4 bundles of tens and 13 sticks. From these 2 bundles of tens and 4 sticks have been subtracted. Two bundles of tens and 9 sticks are left. That is 2 tens and 9.

86  8 tens 6
- 46  - 4 tens 8
  38  3 tens 8
=38

7 tens 16
- 4 tens 8
  3 tens 8
=38

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>=4</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>hundred</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>=</td>
<td>6</td>
<td>5+1</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>=</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

635 - 478
= 6 hundred 3 tens 5 - 4
  = 5 hundred 12 tens
  = 1 hundred 5 tens
  = 157
## Subtract

<table>
<thead>
<tr>
<th>845</th>
<th>410</th>
<th>510</th>
<th>751 - 267 = 484</th>
</tr>
</thead>
<tbody>
<tr>
<td>-486</td>
<td>41</td>
<td>81</td>
<td>804 - 619 = 185</td>
</tr>
<tr>
<td>359</td>
<td>3</td>
<td>5</td>
<td>7165 - 3076 = 4089</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9548</th>
<th>510</th>
<th>4</th>
<th>832</th>
</tr>
</thead>
<tbody>
<tr>
<td>-6879</td>
<td>7</td>
<td>8</td>
<td>2669</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>910</th>
<th>7205</th>
<th>746</th>
<th>601</th>
<th>832</th>
</tr>
</thead>
<tbody>
<tr>
<td>-421</td>
<td>-4819</td>
<td>-287</td>
<td>-405</td>
<td>-436</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>850</th>
<th>2610</th>
<th>4050</th>
<th>635 - 246 = 389</th>
</tr>
</thead>
<tbody>
<tr>
<td>-451</td>
<td>-702</td>
<td>-3152</td>
<td>702 - 403 = 300</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7120</th>
<th>8240</th>
<th>9032</th>
<th>1242 - 553 = 689</th>
</tr>
</thead>
<tbody>
<tr>
<td>-4923</td>
<td>-4546</td>
<td>-8136</td>
<td>6104 - 5213 = 891</td>
</tr>
</tbody>
</table>

| 8426 | 7439 | 8426 - 7439 = 987 |

---

32 Elementary Mathematics
Relationship Between Addition and Subtraction

30 + 15 + 45
45 - 15 = 30

45 - 30 = 15
15 + 30 = 45

Subtraction is opposite to addition

36 + 10 = 46
46 - 10 = 36
46 - 36 = 10

36 - 9 = 27
36 - 27 = 9
27 + 9 = 36

45 + 15 = 60
60 - = 45
60 - = 15

65 + 22 = 87
- 65 = 22
87 - 22 = 

77 - = 54
54 + 23 = 
- 54 = 23

88 + 12 = 
100 - 88 = 
- 12 = 88
Exercise- 2

1. Add:
   a. 44  
      + 22  
      ---  
   b. 302  
      + 546  
      ---  
   c. 210  
      + 467  
      ---  
   d. 1504  
      + 322  
      ---  
   e. 367  
      + 476  
      ---  
   f. 478  
      + 305  
      ---  
   g. 210  
      + 657  
      ---  
   h. 1504  
      + 756  
      ---  
   i. 4200  
      + 3718  
      ---  
   j. 164  
      + 2680  
      ---  

2. Add:
   a. 61 + 16 =  
   b. 326 + 602 =  
   c. 456 + 546 =  
   d. 376 + 673 + 763 =  
   e. 2561 + 1562 + 3578 =  
   f. 4678 + 467 + 2784 + 1648 =  

3. Subtract:
   a. 968  
      - 426  
      ---  
   b. 7562  
      - 340  
      ---  
   c. 6894  
      - 4102  
      ---  
   d. 702  
      - 304  
      ---  
   e. 9120  
      - 571  
      ---  
   f. 6147  
      - 5658  
      ---  

4. Subtract:
   a. 675 - 41 =  
   b. 9786 - 6120 =  
   c. 714 - 316 =  
   d. 8001 - 7016 =  
   e. 8342 - 506 =  
   f. 7124 - 6125 =  
5. Subtract and fill in the boxes:
   a. \( 820 \)
      \( -731 \)
      Here, Subtraction
      To be subtracted
      Difference
   b. \( 1604 \)
      \( -708 \)
      Here, Remainder
      Subtraction
      To be subtracted
      Here, Remainder
   c. \( 482 - 183 = \)
      Subtraction
      To be subtracted

6. Write subtraction, remainder and the number to be subtracted in the boxes.
   a. \( 840 - 651 = 189 \)
      Here, 189
      840
      651
   b. \( 2041 \)
      \( -1832 \)
      Here, 2041
      209
      1832

7. Fill in the boxes:
   a. \( 53 + 27 = \)
   b. \( 88 - 19 = \)
      \( 80 - 27 = \)
      \( + 69 = 88 \)
      \( 80 - 53 = \)
      \( 88 - \) = 19
   c. \( 64 + \) = 92
   d. \( 125 + 75 = \)
      \( - 64 = 28 \)
      \( - 75 = 125 \)
      \( 92 - \) = 64
      200 - \( \) = 75
Problems Addition and Subtraction

Example 1. In Mithapukur school, there were 365 learners, 125 more students were admitted in the school. How many students are there altogether now?

Solution:  
\[
\text{Number of learners} = 365 \\
\text{(Number of new students admitted) + 125} \\
\therefore \text{Total learners} = 490
\]

Answer: 490

Example 2. Zinia Begum’s monthly income is Tk 7650. Her monthly expense is Tk 6700. How much is her monthly savings?

Solution:  
\[
\begin{align*}
\text{Monthly income} & : \text{Tk 7650} \\
\text{Monthly expense} & : \text{Tk 6700} \\
\therefore \text{Monthly savings} & : \text{Tk 950}
\end{align*}
\]

Answer: Monthly savings Tk 950

Example 2. Seema has Tk 575. Reema has Tk 190 less than Seema. If the taka of the two is put together, it equals to Neepa’s taka. How much taka does Neepa have?

Solution:  
\[
\begin{align*}
\text{Seema has} & : \text{Tk 575} \\
\text{Reema has Tk 190 less than Seema} \\
\therefore \text{Reema has (575-190) taka} & = \text{385 taka} \\
\therefore \text{Neepa has (575+385) taka} & = \text{960 taka} \\
\text{Answer Tk. 960}
\end{align*}
\]

Example 4. Mr. Selim went to market with Tk 525. He bought fish for Tk 150, oil for Tk 90 and vegetables for Tk 75. How much money was left with him?

Solution:  
\[
\begin{align*}
\text{Fish} & : \text{Tk 150} & \text{Had} & : \text{Tk 525} \\
\text{Oil} & : \text{Tk 90} & \text{Cost} & : \text{Tk 315} \\
\text{Vegetables} & : \text{Tk 75} & \text{Left} & : \text{Tk 210} \\
\text{Total} = & : \text{Tk 315}
\end{align*}
\]

Answer: Tk 210 remained with Mr. Selim.
**Exercise - 3**

1. In the annual examination, Deeba has got 85 marks in Bangla, 90 in mathematics and 80 in English. What is the total marks she got in three subjects?

2. Mr. Abdul Halim bought rice at Tk 375, fish at Tk 175 and oil at Tk 90. How much money did he spend altogether?

3. Mita had Tk 175. She bought books at Tk 75 and Khata at Tk 35. How much taka was left with her?

4. Daily income of Subol is Tk 275. His daily expense is Tk 180. How much taka does he save everyday?

5. Ziku has Tk 271 and Piku has Tk 108. If the taka of the two is put together, then it equals to the taka of Tiku. How much taka do the three have altogether?

6. Tk 3000 is needed for the picnic of the students of class Three, Four and Five. Tk 1055 and Tk 1200 have been collected from the class Four and Five respectively. How much taka will have to be collected from class Three?

7. What should be added to 476 to get 900?

8. Mr. Kamal needs Tk 9175 for repairing his house. He sold jute for Tk 1225, cow for Tk 5025 and goat for Tk 1900. How much more does he need?

9. Sujon has Tk 975. Sumon has Tk 688. How much taka does need to equal the taka of Sujon?

10. In a nursery, there were 805 saplings. 617 saplings were sold. 575 more saplings were brought in that nursery. How many saplings are there now?
11. What should be subtracted from 917 to get 409?

12. The sum of two numbers is 1475. One of them is 986. What is the other number?

13. The daughter is 16 years old and the father is 47 years old. What will be their total age after 12 years?

14. In a school, there are 1275 seats. How many seats should be arranged for 1326 students?

15. A man went to market for Eid shopping with Tk 2025. After returning home, he found that he had Tk 627 with him. How much taka did he spend?

16. In your school, there were 321 students. 75 students have dropped out. 109 fresh students were admitted. How many students are there in your school now?

17. The population of Rasulpur village is 5781. The number of male is 2985. What is the number of female?

18. The difference between the two numbers is 1013. The greater number is 2104; What is the smaller number?

19. In a train, the number of seats is 1575. In two days tickets were sold for 509 and 425 seats. Tickets for how many seats were not sold?

20. In a garden, there are 179 mango trees. In that garden, there are 30 more jackfruit trees than mango trees. How many trees are there in the garden in all?
**Multiplication**

\[
\begin{array}{c}
\text{\begin{array}{c}
4 \\
+ \text{ an additional 4} \\
= 12
\end{array}} \\
4 + 4 + 4 = 12
\end{array}
\]

\[
\text{4, 3 times equal 12}
\]

\[
\begin{array}{c}
\text{\begin{array}{c}
\text{an additional 3} \\
\text{another 3} \\
\text{and 3 again} \\
= 12
\end{array}} \\
3 + 3 + 3 + 3 = 12
\end{array}
\]

\[
\text{3, 4 times equal 12}
\]

\[
\therefore 4 \times 3 = 3 \times 4 = 12
\]

Fill in the boxes (One is done for you)

\[
\begin{array}{c}
7 \times 5 = 5 \times 7 = \boxed{35} \\
4 \times 9 = \boxed{36} \\
5 \times 8 = \boxed{40} \\
9 \times 6 = \boxed{54}
\end{array}
\]

\[
\begin{array}{c}
7 \times 8 = 8 \times 7 = \boxed{56} \\
6 \times 8 = \boxed{48} \\
7 \times 9 = \boxed{63} \\
5 \times 6 = \boxed{30}
\end{array}
\]
## Fill in the boxes

<table>
<thead>
<tr>
<th>x</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td>28</td>
<td></td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>64</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>
### Multiplication table (From 11 to 20)

<table>
<thead>
<tr>
<th>X</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>11</td>
<td>22</td>
<td>33</td>
<td>44</td>
<td>55</td>
<td>66</td>
<td>77</td>
<td>88</td>
<td>99</td>
<td>110</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>24</td>
<td>36</td>
<td>48</td>
<td>60</td>
<td>72</td>
<td>84</td>
<td>96</td>
<td>108</td>
<td>120</td>
</tr>
<tr>
<td>13</td>
<td>13</td>
<td>26</td>
<td>39</td>
<td>52</td>
<td>65</td>
<td>78</td>
<td>91</td>
<td>104</td>
<td>117</td>
<td>130</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>28</td>
<td>42</td>
<td>56</td>
<td>70</td>
<td>84</td>
<td>98</td>
<td>112</td>
<td>126</td>
<td>140</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>30</td>
<td>45</td>
<td>60</td>
<td>75</td>
<td>90</td>
<td>105</td>
<td>120</td>
<td>135</td>
<td>150</td>
</tr>
<tr>
<td>16</td>
<td>16</td>
<td>32</td>
<td>48</td>
<td>64</td>
<td>80</td>
<td>96</td>
<td>112</td>
<td>128</td>
<td>144</td>
<td>160</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
<td>34</td>
<td>51</td>
<td>68</td>
<td>85</td>
<td>102</td>
<td>119</td>
<td>136</td>
<td>153</td>
<td>170</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
<td>36</td>
<td>54</td>
<td>72</td>
<td>90</td>
<td>108</td>
<td>126</td>
<td>144</td>
<td>162</td>
<td>180</td>
</tr>
<tr>
<td>19</td>
<td>19</td>
<td>38</td>
<td>57</td>
<td>76</td>
<td>95</td>
<td>114</td>
<td>133</td>
<td>152</td>
<td>171</td>
<td>190</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
<td>200</td>
</tr>
</tbody>
</table>
## Fill in the boxes

<table>
<thead>
<tr>
<th></th>
<th>13 \times 1</th>
<th>13 \times 2</th>
<th>13 \times 3</th>
<th>13 \times 4</th>
<th>13 \times 5</th>
<th>13 \times 6</th>
<th>13 \times 7</th>
<th>13 \times 8</th>
<th>13 \times 9</th>
<th>13 \times 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Fill in the boxes with the help of multiplication table

<table>
<thead>
<tr>
<th>\times</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55</td>
<td></td>
<td></td>
<td>88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>42</td>
<td></td>
<td></td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td>96</td>
<td></td>
<td></td>
<td>160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>38</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>171</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td>160</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Multiplication**

Example 1. 43

\[
\begin{array}{c}
3 \\
\times 3 \\
\hline
129
\end{array}
\]

Ex: \[43 \times 3 = ?\]

\[4 \text{ tens} \times 3 = 12 \text{ tens}\]

\[3 \times 3 = 9\]

\[\frac{120}{129}\]

Answer: 129

Example 2. 28

\[
\begin{array}{c}
7 \\
\times 7 \\
\hline
196
\end{array}
\]

Ex: \[28 \times 7 = ?\]

\[2 \text{ tens} \times 7 = 14 \text{ tens}\]

\[8 \times 7 = 56\]

\[\frac{140}{196}\]

Answer: 196

Example 3. 213

\[
\begin{array}{c}
3 \\
\times 3 \\
\hline
639
\end{array}
\]

Ex: \[213 \times 3 = ?\]

\[2 \text{ hundred} \times 3 = 6 \text{ hundred}\]

\[1 \text{ ten} \times 3 = 3 \text{ tens}\]

\[3 \times 3 = 9\]

\[\frac{600}{639}\]

Answer: 639

Example 4. 683

\[
\begin{array}{c}
9 \\
\times 9 \\
\hline
6147
\end{array}
\]

Ex: \[683 \times 9 = ?\]

\[8 \text{ tens} \times 9 = 72 \text{ tens}\]

\[3 \times 9 = 27\]

\[6 \text{ hundred} \times 9 = 54 \text{ hundred}\]

\[\frac{720}{6147}\]

Answer: 6147
### Multiplication through a short-cut method

- **Example 5.**
  \[
  13 \times 10 = 13 \times 1 \text{ tens} = 13 \text{ tens} = 130 \\
  \therefore 13 \times 10 = 130
  \]

  **Answer:** 130

- **Example 6.**
  \[
  57 \times 20 = 57 \times 2 \text{ tens} = 114 \text{ tens} = 1140 \\
  \therefore 57 \times 20 = 1140
  \]

  **Answer:** 1140

- **Example 7.**
  \[
  135 \times 30 = 135 \, 3 \text{ tens} = 405 \text{ tens} = 4050 \\
  \therefore 135 \times 30 = 4050
  \]

  **Answer:** 4050

- **Example 8.**
  \[
  340 \times 50 = 340 \times 5 \text{ tens} = 1700 \text{ tens} = 17000 \\
  \therefore 340 \times 50 = 17000
  \]

  **Answer:** 17000

- **Example 9.**
  \[
  82 \times 100 = 82 \times 1 \text{ hundred} = 82 \text{ hundred} = 8200 \\
  \therefore 82 \times 100 = 8200
  \]

  **Answer:** 8200

- **Example 10.**
  \[
  100 \times 100 = 100 \times 1 \text{ hundred} = 100 \text{ hundred} = 10000 \\
  \therefore 100 \times 100 = 10000
  \]

  **Answer:** 10000
Example 11. Multiply :  
\[
\begin{array}{c}
34 \\
\times 12
\end{array}
\]
Explanation :  
\[
\begin{array}{c}
34 \\
4 = 4 \\
3 \text{ tens} = 30 \\
12 \\
2 = 2 \\
\text{1 tens} = 10
\end{array}
\]
Solution :  
\[
\begin{array}{c}
34 \\
\times 12
\end{array}
\]
\[
\begin{array}{c}
4 \times 2 = 8 \\
30 \times 2 = 60 \\
68
\end{array}
\]
\[
\begin{array}{c}
340 \\
408
\end{array}
\]
\[
\begin{array}{c}
34 \times 10 \\
4 \times 10 = 40 \\
30 \times 10 = 300 \\
\therefore 34 \times 12 = 340 \\
\therefore 34 \times 10 = 340 \\
\therefore 34 \times 12 = 408
\end{array}
\]
Answer : 408

Example 12. Multiply :  
\[
\begin{array}{c}
273 \\
\times 29
\end{array}
\]
Explanation :  
\[
\begin{array}{c}
273 \\
3 \text{ ones} = 3 \\
7 \text{ tens} = 70 \\
2 \text{ hundreds} = 200
\end{array}
\]
\[
\begin{array}{c}
273 \\
\times 29
\end{array}
\]
\[
\begin{array}{c}
3 \times 9 = 27 \\
70 \times 9 = 630 \\
200 \times 9 = 1800
\end{array}
\]
\[
\begin{array}{c}
2457 \\
5460 \\
7917
\end{array}
\]
And,  
\[
\begin{array}{c}
273 \times 20 \\
3 \times 20 = 60 \\
70 \times 20 = 1400 \\
200 \times 20 = 4000 \\
\therefore 273 \times 9 = 2457 \\
273 \times 20 = 5460 \\
273 \times 29 = 7917
\end{array}
\]
Answer : 7917

Comments : The learners will multiply through the usual method, beyond this no explanation will be sought from them.
Example 13. Multiply: \[ 370 \times 18 \]

Solution: 
\[
\begin{array}{c}
370 \\
\times 18 \\
\hline
2960 \\
3700 \\
6660 \\
\end{array}
\]

Answer: 6660

Example 14. Multiply: \[ 209 \times 46 \]

Solution: 
\[
\begin{array}{c}
209 \\
\times 46 \\
\hline
1254 \\
8360 \\
9614 \\
\end{array}
\]

Answer: 9614

Example 15. There are 25 pieces of chalks in a box. How many pieces of chalks are there in 15 boxes?

Solution: 
\[
\begin{array}{c}
25 \\
\times 15 \\
\hline
125 \\
250 \\
375 \\
\end{array}
\]

Answer: 375

Example 16. There are 35 pages in a book. How many pages are there in 16 books?

Solution: 
\[
\begin{array}{c}
35 \\
\times 16 \\
\hline
210 \\
350 \\
560 \\
\end{array}
\]

Answer: 560
## Multiplicand, Multiplier and the Product

12 \times 8 = 96 \quad \text{Here, 12 what is multiplicand, 8 is multiplier and 96 is the product of multiplication.}

<table>
<thead>
<tr>
<th>24</th>
<th>Here, multiplicand</th>
<th>15</th>
<th>Here, multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>\times 24</td>
<td>24</td>
<td>\times 300</td>
</tr>
<tr>
<td>120</td>
<td></td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>240</td>
<td>multiplier</td>
<td>15</td>
<td>multiplicand</td>
</tr>
<tr>
<td>360</td>
<td>Product of multiplication</td>
<td>360</td>
<td>Product of multiplication</td>
</tr>
</tbody>
</table>

In Multiplication between the two numbers :

- The number which is multiplied is called multiplicand.
- The number which multiplies is called multiplier.
- The answer is called the product of multiplication.

Fill in the empty boxes :

7 \times 9 = 63 \quad \text{Here,}

- multiplicand  \quad ; \quad multiplier  \quad ; \quad product  

13 \times 6 = 78 \quad \text{Here,}

- multiplicand  \quad ; \quad multiplier  \quad ; \quad product  

<table>
<thead>
<tr>
<th>59</th>
<th>Here, 472</th>
<th>65</th>
<th>Here</th>
<th>multiplicand</th>
</tr>
</thead>
<tbody>
<tr>
<td>\times 8</td>
<td>59</td>
<td>\times 9</td>
<td>585</td>
<td>a whole number</td>
</tr>
</tbody>
</table>

\[
3 \times 8 = 24; \quad 8 \times 3 = 24 \quad \therefore \quad 3 \times 8 = 8 \times 3 \\
6 \times 7 = 42; \quad 7 \times 6 = 42 \quad \therefore \quad 6 \times 7 = 7 \times 6 \\
13 \times 9 = 117; \quad 9 \times 13 = 117 \quad \therefore \quad 13 \times 9 = 9 \times 13 \\
\]

**Note** : The product remains the same in exchange of the place of multiplicand and multiplier.
Exercise - 4

1. Fill in the leoxes:
   a. \[6 \times 9 = \square\]  
   b. \[8 \times \square = 72\]
   c. \[15 \times 7 = \square\]
   d. \[12 \times 5 = \square\]
   e. \[18 \times \square = 108\]
   f. \[\square \times 9 = 171\]
   g. \[53 \times 16 = 848\] Here, multiplier \[\square\] ; multiplicand \[\square\] ; product \[\square\].

2. Work out the product:
   a. \[65 \times 4\]  
   b. \[46 \times 7\]
   c. \[71 \times 9\]
   d. \[97 \times 8\]
   e. \[88 \times 6\]
   f. \[234 \times 4\]
   g. \[532 \times 8\]
   h. \[406 \times 9\]
   i. \[728 \times 9\]
   j. \[876 \times 5\]
   k. \[936 \times 7\]
   l. \[999 \times 8\]

3. Find out product through short - cut method:
   a. \[61 \times 10\]
   b. \[43 \times 20\]
   c. \[36 \times 50\]
   d. \[24 \times 100\]
   e. \[387 \times 10\]
   f. \[250 \times 20\]
   g. \[187 \times 30\]
   h. \[67 \times 50\]
   i. \[100 \times 100\]

4. Find out the product:
   a. \[327 \times 9\]
   b. \[910 \times 5\]
   c. \[849 \times 9\]
   d. \[65 \times 25\]
   e. \[48 \times 27\]
   f. \[98 \times 65\]
   g. \[99 \times 87\]
   h. \[325 \times 14\]
   i. \[148 \times 47\]
   j. \[309 \times 32\]
   k. \[230 \times 28\]
   l. \[408 \times 19\]
5. There are 45 lozenges in a packet. How many lozenges are there in 12 packets?

6. A car goes 54 kilometers in an hour. How many kilometers will it go in 15 hours at the same speed?

7. Halima Khatun earns Tk 125 daily by sewing. How many Tk does she earn in 15 days?

8. There are 104 pages in a book. How many pages are there altogether in 25 books?

9. The age of Apu's grandfather is nine times of Apu's age. If Apu's age is 9 years, what is the age of his grandfather?

10. Tuli sleeps for 7 hours daily. How many hours will she sleep in a month? (1 month = 30 days)

11. A truck contains 40 large bags of rice. How many bags of rice will be there 6 trucks?

12. The amount of Anu's taka is nine times of Minu's taka. If Minu has Tk 88, how many taka does Anu have?

13. The price of a goose is Tk 88. What is the price of 25 geese?

14. There are 28 trees in a row of a garden. How many trees are there in 17 rows in that garden?

15. There are 112 guavas in a basket. How many guavas are there altogether in 19 baskets?
## Division

### Ideas about division

Let us notice: If 5 pencils are taken away each time from 15 pencils, it can be taken away 3 times.

* Division means repeated method of subtraction.

<table>
<thead>
<tr>
<th>63 ÷ 9 = What?</th>
<th>9 ) 63 ( 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 x What? = 63</td>
<td>63</td>
</tr>
<tr>
<td>9 x 7 = 63</td>
<td>0</td>
</tr>
<tr>
<td>[63 ÷ 9 = 7]</td>
<td></td>
</tr>
</tbody>
</table>

| 35 ÷ 5 = | 7 ) 49 ( |
| 54 ÷ 6 = | 8 ) 72 ( |
| 48 ÷ 8 = | 4 ) 32 ( |
| 81 ÷ 9 = |           |
**Dividend, Divisor, Quotient and Remainder**

\[
\begin{array}{ccc}
28 & \div & 4 \\
\downarrow & & \downarrow \\
\text{Dividend} & \text{Divisor} & \text{Quotient} \\
\end{array}
\]

Dividend $\div$ Divisor $=$ Quotient

\[
28 = 4 \times 7
\]

Dividend $=$ Divisor $\times$ Quotient

Division is the opposite method of multiplication

\[
8) 149 \quad (18
\]

Here, 149 Dividend

\[
\begin{array}{c}
8 \\
69 \\
64 \\
5
\end{array}
\]

8 Divisor

18 Quotient

5 Remainder

\[
\because 149 = 8 \times 18 + 5 \quad \text{That is, Dividend} = \text{Divisor} \times \text{Quotient}
\]

$+$ Remainder

Fill in the boxes:

\[
\begin{array}{ccc}
35 & \div & 5 = 7 \\
\text{Here,} & \text{Divisor} & \text{Dividend} \\
\text{Dividend} & \text{Quotient} & \text{Quotient} \\
35 & \div & 5 = 7
\end{array}
\]

\[
\begin{array}{ccc}
6) 80 \quad (13
\end{array}
\]

Here,

\[
\begin{array}{c}
6 \\
20 \\
18 \\
2
\end{array}
\]

6 Divisor

20 Dividend

18 Quotient

2 Remainder

**Note:**

- The number which divides is called the divisor.
- The number which is divided is called the dividend.
- The number that we get after dividing is the quotient.
- The number which remains after the division is called the remainder; remainder must be smaller than the divisor.
- If the remainder is zero, then dividend is thoroughly divisible by the divisor.
\[
\begin{align*}
5 \div 5 &= \text{What?} \quad 5 \times 5 &= 1 \\
5 \times 1 &= 5 \\
\therefore 5 \div 5 &= 1
\end{align*}
\]

\[
\begin{align*}
9 \div 1 &= \text{What?} \quad 1 \times 9 &= 9 \\
\text{What?} \times 9 &= 9 \\
1 \times 9 &= 9 \\
\therefore 9 \times 1 &= 9
\end{align*}
\]

\[
\begin{align*}
0 \div 2 &= 0 \\
2 \times 0 &= 0 \\
\therefore 0 &= 0
\end{align*}
\]

\[
\begin{align*}
0 \div 5 &= 0 \\
5 \times 0 &= 0 \\
\therefore 0 &= 0
\end{align*}
\]

\[
5 \div 0 = \text{There is no number.}
\]

A number cannot be divided by zero (0). For this reason divisor cannot be zero (0) in any situation.

**Let us notice:**

- When divisor and dividend is equal, quotient is 1.
- When divisor is one, quotient equals to the dividend.
- When divisor is 0, quotient is also 0.
- When divisor is 0 we cannot divide, for this reason divisor cannot be 0 in any situation

**Fill in the boxes (Two are done for you)**

<table>
<thead>
<tr>
<th>Dividend</th>
<th>42</th>
<th>55</th>
<th>25</th>
<th>78</th>
<th>85</th>
<th>61</th>
<th>0</th>
<th>95</th>
<th>17</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divisor</td>
<td>6</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Quotient</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remainder</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Division

Example 1. Divide 336 by 3

Solution: \( 3 \) ) 336 ( 112

\[
\begin{array}{c|c|c}
3 & 3 & \text{hundreds} \\
\hline
3 & 3 & \text{tens} \\
\hline
6 & 6 & \text{tens} \\
\hline
0 & 0 & \text{remainder}
\end{array}
\]

Explanation: \( 336 = 3 \text{ hundreds } 3 \text{ tens } 6 \)

Answer: Quotient 112

Example 2. Divide 371 by 7.

Solution: \( 7 \) ) 371 ( 53

\[
\begin{array}{c|c|c}
35 & 37 & \text{tens} \\
\hline
21 & 21 & \text{tens} \\
\hline
0 & 0 & \text{remainder}
\end{array}
\]

Explanation: \( 371 = 3 \text{ hundreds } 7 \text{ tens } 1 \)

Answer: Quotient 53

Note: 3 of the hundred of the dividend is smaller than divisor 7. So, 37 tens has been taken by putting together the numbers of the hundreds and tens columns.
### Example 3. Divide 279 by 6

**Solution:**

\[
\begin{array}{c}
6 \) 279 ( 46 \\
\underline{24} \\
39 \\
\underline{36} \\
3 \\
\end{array}
\]

**Explanation:**

\[
\begin{array}{c}
6 \) 279 : 279 = 27 \text{ tens } 9 \\
\underline{24} \\
39 \\
\underline{36} \\
3 \\
\end{array}
\]

**Answer:** Quotient 46, Remainder 3.

**Comment:** The learners will do the sum of division in the usual method. No explanation will be sought from them beyond this.

### Example 4. Divide 509 by 7

**Solution:**

\[
\begin{array}{c}
7 \) 509 ( 72 \\
\underline{49} \\
19 \\
\underline{14} \\
5 \\
\end{array}
\]

**Answer:** Quotient 72, Remainder 5

### Example 5. Divide 660 by 6

**Solution:**

\[
\begin{array}{c}
6 \) 660 ( 110 \\
\underline{6} \\
6 \\
\underline{6} \\
0 \\
\end{array}
\]

**Answer:** Quotient 110

### Example 6. The price of 8 khata is Tk. 88. What is the price of each book?

**Solution:**

\[
\begin{array}{c}
8 \) 88 ( 11 \\
\underline{8} \\
8 \\
\underline{8} \\
0 \\
\end{array}
\]

**Answer:** Tk 11

### Example 7. 4 items make a Hali. How many will be in 60 bananas?

**Solution:**

\[
\begin{array}{c}
4 \) 60 ( 15 \\
\underline{4} \\
20 \\
\underline{20} \\
0 \\
\end{array}
\]

**Answer:** 15 groups of four
Exercise - 5

1. Divide:
   a. $63 \div 3$    b. $84 \div 4$    c. $330 \div 3$    d. $242 \div 2$
   e. $126 \div 6$    f. $550 \div 5$    g. $404 \div 4$    h. $567 \div 9$
   i. $800 \div 9$    j. $428 \div 4$    k. $931 \div 8$    e. $948 \div 6$

2. Fill in the boxes:
   a. $28 \div 4 = 7$ here, 4 [ ] , 28 [ ] , 7
   b. $7 \div 1 = 7$ here, dividend and [ ] are equal.
   c. $5 \div 5 = 1$ here, quotient [ ] and [ ] and [ ] are equal.
   d. $8 \div 325 \div 40$ here, quotient [ ] , remainder [ ] .

3. How many parts of 2 metre each, can be taken away from a 36 metre long stick?

4. A bus goes 92 kilometres in 4 hours. How many kilometres does the bus go in every hour?

5. There are 40 students in a class. How many benches will be needed if 5 students seat in each beanch?

6. The price of a pencil is Tk 4. How many pencils can be bought for Tk 96?

7. The price of 9 pens is Tk 99. What is the price of each pen?
Solution to problems

(related to addition, Subtraction, Multiplication and division)

Example 1. In a school there are 15 boxes of chalks. There are 15 chalks in each box. Except these, there are 25 more pieces chalks. How many pieces of chalks are there altogether in that school?

Solution: There are 50 pieces chalks in a box

Number of chalks in 15 boxes are (50×5)

Now, 50

\[
\begin{align*}
   \times & 15 \\
   & 250 \\
   & \underline{+ 25} \\
   & 500 \\
   & 750 \\
\end{align*}
\]

Total chalks are 775

Answer: 775

Example 2. Rakib collects Tk 60 per month. He gives Rani Tk 85 from his collection of 12 months. How much money is left with him?

Solution: Collects Tk 60 in 1 month

Collects in 12 months (60×12) taka

Now, 60

\[
\begin{align*}
   \times & 12 \\
   & 120 \\
   & \underline{\text{− 85 taka}} \\
   & 600 \\
   & 720 \\
\end{align*}
\]

Tk 635 is left with Rakib

Answer: 635 taka
Example 3. There are 50 lozenges in a packet. From these, 8 lozenges are kept. The remaining lozenges are distributed equally among 7 people. How many lozenges does each one get?

Solution: The number of lozenges minus 8 : $50 - 8 = 42$

Now, 42 lozenges are distributed among 7 people

\[ 42 \div 7 = 6 \]

\[ \therefore \text{ Each one gets 6 lozenges.} \]

Answer: 6

Example 4. In a shelf there are 86 books. There are 94 books in another shelf. From these books if everyone is given 6 books then how many people can be given those books?

Solution: The number of books in a shelf \[ 86 \]

The number of books in another shelf \[ 94 \]

Total books \[ 180 \]

Now, 6 ) 180 ( 30

\[ \begin{array}{c}
18 \\
0 \\
0 \\
0 \\
\end{array} \]

\[ \therefore 30 \text{ people can be given.} \]

Answer: 30 people.
Example 5. Of four students, every student has 25 lozenges. Lozenges of all are put together. After that the lozenges are distributed equally among 5 students. Now how many lozenges does each one get.

Solution: \[ \begin{array}{c}
25 \\
\times 4 \\
\hline
100
\end{array} \quad \text{Now, } 5 \ ) 100 \ (20)
\]

\[ \begin{array}{c}
10 \\
\hline
0
\end{array} \quad \text{10}
\]

\[ \begin{array}{c}
0 \\
\hline
0
\end{array} \quad \text{0}
\]

\[ \begin{array}{c}
0 \\
\hline
0
\end{array} \quad \text{0}
\]

\[ \therefore \text{There are } 100 \text{ lozenges in all. } \quad \therefore \text{Each one gets } 20 \text{ lozenges.} \]

Answer: 20

Example 6. Moni’s father divided 99 lichies equally in three parts. He gave two parts to Moni. How many lichies did Moni get

Solution: \[ \begin{array}{c}
3 \ ) 99 \ (33)
\end{array} \quad \therefore \text{In one part there are } 33 \text{ lichies}
\]

\[ \begin{array}{c}
9 \\
\hline
9
\end{array} \quad \text{Moni got two parts}
\]

\[ \begin{array}{c}
9 \\
\hline
0
\end{array} \quad \text{0}
\]

Now, \[ \begin{array}{c}
33 \\
\times 2 \\
\hline
66
\end{array} \]

Answer: 66

\[ \therefore \text{Moni got } 66 \text{ lichies} \]
Exercise – 6

1. There are 42 students in a class. Each one gave subscription of Tk 7. How much money was collected as subscription in all?

2. There are 45 mangoes in a basket. How many mangoes are there in such 12 baskets?

3. In a class there are 45 students. 5 students can sit in each bench. How many benches will be needed that class?

4. A 36 metre long ribbon is divided into 9 parts equally. How many metre is in each part?

5. There are 12 benches in a class. 5 girl students can be seated in each of the 8 benches. 6 students can be seated in each of the remaining 4 benches. How many students can be seated altogether in 12 benches?

6. The price of a shirt is Tk 75. The price of a pant is Tk 120. How much money will be needed to buy 25 shirts and 6 pants?

7. The price of a ball point pen and six khatas is Tk 77 together. The price of a khata is Tk 12. What is the price of a ball point pen?

8. There should be 82 bananas in a cluster. Bananas of such 8 cluster are counted. After counting 15 bananas are found less. How many bananas were there in the clusters?

9. There are 35 mangoes in a basket. There are 37 mangoes in another basket. By putting together the mangoes of the two baskets are distributed among 9 persons. How many mangoes does each person get?
10. Sumi bought a packet of 40 lozenges. She kept side 5 lozenges from the packet. She distributed the remaining lozenges equally among her 5 friends. How many lozenges did each friend of Sumi get?

11. Rana has Tk 99. He gave one ninth of that money to Chabi. How many taka is now left with Rana?

12. 6 parts out of 8 parts of a 88 metre long ribbon are given to Shahana. How many metres does Shahana get?

13. Each of 25 women gave Tk 75 as subscription. By putting this subscription together, it was distributed equally among 15 flood affected people. How many takas did each get?

14. Father's present age is 3 times than that of the son. 5 years ago the son's age was 8. What is the father's present age?

15. Mr. Kalam sold 7 basket of mangoes at the rate of Tk 75 per basket. He bought a shirt for Tk 98. He deposited the remaining taka at a bank. How many takas did he deposit at the bank?

16. A car starts from Monohordy at 6 a.m. The car reaches Hobiganj at 12 p.m without stopping anywhere. If the car goes 45 kilometre per hour, then what is the distance from Monohordy to Hobiganj?
**Mathematical Signs**

**Mathematical method sign**

"Three plus two" is written, 3+2. Here, 3 and 2 is number sign and the + sign is sign of addition method, which is in brief called addition sign. Mathematical method signs are:

+ Addition
- Subtraction
× Multiplication
÷ Division

Express using sign (one is done for you):

<table>
<thead>
<tr>
<th>Expression</th>
<th>Mathematical Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>One hundred twenty plus twenty five</td>
<td>120 + 25</td>
</tr>
<tr>
<td>Three hundred minus one hundred three</td>
<td></td>
</tr>
<tr>
<td>Four hundred multiplied by twelve</td>
<td></td>
</tr>
<tr>
<td>Two hundred fifty divided by twenty five</td>
<td></td>
</tr>
</tbody>
</table>

**Relation sign**

Relation signs between two numbers are:

Example:

(a) \( 3 + 2 = 5 \)
(b) \( 9 - 3 > 4 \)
(c) \( 10 \div 5 < 3 \)

Express using mathematical relation sign:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mathematical Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four hundred ninety nine is smaller than five hundred</td>
<td>499 &lt; 500</td>
</tr>
<tr>
<td>Six thousand twelve is greater than five thousand</td>
<td>6012 &gt; 500</td>
</tr>
</tbody>
</table>
Put appropriate mathematical method sign (+, -, x, ÷) in the box.

(Two have been done for you)

<table>
<thead>
<tr>
<th>145</th>
<th>15</th>
<th>= 160</th>
<th>145 + 15 = 160</th>
</tr>
</thead>
<tbody>
<tr>
<td>655</td>
<td>500</td>
<td>= 155</td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>3</td>
<td>= 750</td>
<td>250 x 3 = 750</td>
</tr>
<tr>
<td>715</td>
<td>25</td>
<td>= 740</td>
<td></td>
</tr>
<tr>
<td>830</td>
<td>5</td>
<td>= 166</td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>12</td>
<td>= 1500</td>
<td></td>
</tr>
<tr>
<td>873</td>
<td>6</td>
<td>= 867</td>
<td></td>
</tr>
</tbody>
</table>

Example: Put appropriate relation sign (>, =, <) in the box:

(a) 250 + 30 ___________ 30 + 250
(b) 250 x 3 ___________ 3 x 250
(c) 250 - 3 ___________ 230
(d) 250 x 3 ___________ 650
(e) 250 ÷ 5 ___________ 55

Solution:

a. 250 + 30 = 280
   Again, 30 + 250 = 280
   So, 250 + 30 = 30 + 250
   Answer : 250 + 30 = + 30 + 250

b. 250 x 3 = 750
   Again, 3 x 250 = 750
   So, 250 x 3 = 3 x 250
   Answer : 250 x 3 = = 3 x 250

c. 250 - 30 = 220
   Here, 220 < 230
   Answer : 250 - 30 < 230

d. 250 x 3 = 750
   Here, 750 > 650
   Answer : 250 x 3 > 650

e. 250 ÷ 5 = 50
   Here, 50 < 55
   Answer 250 ÷ 5 < 55
Exercise - 7

1. Express using sign :
   a. Two hundred fifty plus seventy.
   b. One thousand one hundred and one plus one hundred three.
   c. Four hundred seventy five minus three hundred seven.
   d. Eight hundred ninety minus ninety.
   e. Multiplication seven hundred forty five by fifteen ?
   f. Two thousand nine hundred and seventy five minus two thousand seventy five.
   g. Division of nine hundred ninety two by sixteen.
   h. Add twenty four with three times of eight.

2. Express using Mathematical sign :
   a. Eight hundred eighty is smaller than eight hundred ninety.
   b. Eight thousand forty five is smaller than eight thousand five hundred.
   c. Four thousand is greater than three thousand seven hundred and twenty.
   d. Ten thousand is greater than nine thousand nine hundred and ninety.

3. put applicable sign ( +, -, x, ÷ ) in the box :
   a. 250   60 = 310
   b. 150   6 = 900
   c. 350   40 = 310
   d. 840   2 = 838
   e. 999   11 = 1010
   f. 660   0 = 0
   g. 783   3 = 261
   h. 270   5 = 1350
   i. 830   0 = 830
4. Put applicable sign ( >, =, <) in the box:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>400</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>275 + 85</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>275 + 75</td>
<td>300</td>
</tr>
<tr>
<td>c.</td>
<td>807 + 700</td>
<td>1000</td>
</tr>
<tr>
<td>d.</td>
<td>999 + 111</td>
<td>10000</td>
</tr>
<tr>
<td>e.</td>
<td>1209 − 1200</td>
<td>10</td>
</tr>
<tr>
<td>f.</td>
<td>875 − 0</td>
<td>875</td>
</tr>
<tr>
<td>g.</td>
<td>720 − 700</td>
<td>20</td>
</tr>
<tr>
<td>h.</td>
<td>920 × 3</td>
<td>2700</td>
</tr>
<tr>
<td>i.</td>
<td>920 × 3</td>
<td>2760</td>
</tr>
<tr>
<td>j.</td>
<td>920 × 3</td>
<td>2600</td>
</tr>
<tr>
<td>k.</td>
<td>265 ÷ 5</td>
<td>53</td>
</tr>
<tr>
<td>l.</td>
<td>265 ÷ 5</td>
<td>50</td>
</tr>
<tr>
<td>m.</td>
<td>265 ÷ 5</td>
<td>61</td>
</tr>
<tr>
<td>n.</td>
<td>126 ÷ 9</td>
<td>11</td>
</tr>
</tbody>
</table>

5. **Express with the help of mathematical sign:**

- a. When 64 is divided by 8, then the quotient is 8.
- b. When 50 is multiplied by 0, then equal to the product of multiplication.
- c. When 43 is added with 17, then the sum is greater than 45.
- d. When 43 is added with 17, then the sum is equal to 60.
- e. 3 times of 35 is greater than 100.
- f. When 120 is divided by 8, then quotient is smaller than 16.
# Bangladeshi Coin and Note

<table>
<thead>
<tr>
<th>1 paisa</th>
<th>5 paisa</th>
<th>10 paisa</th>
<th>25 paisa</th>
<th>50 paisa</th>
<th>50 paisa</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1 Taka</th>
<th>1 Taka</th>
<th>1 Taka</th>
<th>2 Taka</th>
<th>2 Taka</th>
<th>2 Taka</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
<td><img src="image9.png" alt="Image" /></td>
<td><img src="image10.png" alt="Image" /></td>
<td><img src="image11.png" alt="Image" /></td>
<td><img src="image12.png" alt="Image" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 Taka</th>
<th>5 Taka</th>
<th>5 Taka</th>
<th>10 Taka</th>
<th>10 Taka</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image13.png" alt="Image" /></td>
<td><img src="image14.png" alt="Image" /></td>
<td><img src="image15.png" alt="Image" /></td>
<td><img src="image16.png" alt="Image" /></td>
<td><img src="image17.png" alt="Image" /></td>
</tr>
</tbody>
</table>
**Bangladeshi note**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Taka</td>
<td><img src="image1" alt="20 Taka Note" /> <img src="image2" alt="20 Taka Note" /></td>
</tr>
<tr>
<td>50 Taka</td>
<td><img src="image3" alt="50 Taka Note" /> <img src="image4" alt="50 Taka Note" /></td>
</tr>
<tr>
<td>100 Taka</td>
<td><img src="image5" alt="100 Taka Note" /> <img src="image6" alt="100 Taka Note" /></td>
</tr>
<tr>
<td>500 Taka</td>
<td><img src="image7" alt="500 Taka Note" /> <img src="image8" alt="500 Taka Note" /></td>
</tr>
<tr>
<td>1000 Taka</td>
<td><img src="image9" alt="1000 Taka Note" /> <img src="image10" alt="1000 Taka Note" /></td>
</tr>
</tbody>
</table>
Bangladeshi Coin and Note
Bangladeshi Note

5 coins of 5 paisa coin is equal to 25 paisa
5 coins of 10 paisa coin is equal to 50 paisa
4 coins of 25 paisa coin is equal to 1 Taka
2 coins of 50 paisa coin is equal to 1 Taka
5 coins of 10 paisa coin is equal to 1 Taka
5 coins of 10 paisa coin and 1 nos of 25 paisa coin is equal to 75 paisa.
2 coins of Twenty five paisa and 50 paisa coin is equal to 1 Taka
4 coins of 5 Taka is equal to 20 Taka.
10 coins of 50 Taka is equal to 500 Taka.
3 coins of 10 Taka and 1 nos of 20 Taka is equal to 50 Taka
20 coins of 5 Taka is equal to 100 Taka
8 coins of 50 Taka and 1 nos of 100 Taka is equal to 500 Taka
1 nos of 500 Taka and 5 nos of 100 Taka is equal to 1000 Taka.

Fill in the boxes:

10 coins of _______ is equal to 1 Taka
5 paisa’s of _______ nos coin is equal to 1 Taka
4 nos _______ paisa coin and _______ nos 10 paisa coin is equal to 50 paisa.
20 nos of 5 Taka note is equal to _______ Taka
10 Taka’s _______ nos note is equal to 100 Taka
100 Taka’s _______ nos note is equal to 500 Taka
20 Taka’s _______ nos note is equal to 500 Taka
100 Taka’s _______ nos not is equal to 1000 Taka.
## Writing Method of Taka-Paisa

<table>
<thead>
<tr>
<th>1 paisa = 0.01 Taka</th>
<th>75 paisa = 0.75 Taka</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 paisa = 0.02 Taka</td>
<td>80 paisa = 0.80 Taka</td>
</tr>
<tr>
<td>5 paisa = 0.05 Taka</td>
<td>99 paisa = 0.99 Taka</td>
</tr>
<tr>
<td>8 paisa = 0.08 Taka</td>
<td>100 paisa = 1.00 Taka</td>
</tr>
<tr>
<td>10 paisa = 0.10 Taka</td>
<td>1 Taka 25 paisa = 1.25 Taka</td>
</tr>
<tr>
<td>15 paisa = 0.15 Taka</td>
<td>1 Taka 80 paisa = 1.80 Taka</td>
</tr>
<tr>
<td>20 paisa = 0.20 Taka</td>
<td>90 Taka 8 paisa = 90.08 Taka</td>
</tr>
<tr>
<td>30 paisa = 0.30 Taka</td>
<td>100 Taka = 100.00 Taka</td>
</tr>
<tr>
<td>50 paisa = 0.50 Taka</td>
<td>100 Taka 5 paisa = 100.05 Taka</td>
</tr>
</tbody>
</table>

### Write in number (one is done for you)

<table>
<thead>
<tr>
<th>Twenty two Taka nine paisa =</th>
<th>Eighteen Taka Ninety paisa =</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Taka Five paisa =</td>
<td>Taka</td>
</tr>
<tr>
<td>Ten Taka eight paisa =</td>
<td>Taka</td>
</tr>
<tr>
<td>Nineteen Taka =</td>
<td>Taka</td>
</tr>
<tr>
<td>Two hundred sixty five Taka ten paisa =</td>
<td>Taka</td>
</tr>
<tr>
<td>Five hundred Taka Seventy five paisa =</td>
<td>Taka</td>
</tr>
</tbody>
</table>

### Write in words (one is done for you)

<table>
<thead>
<tr>
<th>3.23 Taka</th>
<th>5.02 Taka</th>
<th>75.09 Taka</th>
<th>501.90 Taka</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Three Taka twenty three paisa</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example 1. What is the total of 60 paisa, 25 paisa and 15 paisa?

Solution:
- 60 paisa
- 25 paisa
- 15 paisa

Total: 100 paisa

Ans: 1 Taka

Example 2. How much taka do we get by adding 2 nos of 25 paisa coin, 4 nos of 10 paisa coin and 3 nos of 5 paisa coin?

Solution:
- 2 nos of 25 paisa coin = 25 paisa × 2 = 50 paisa
- 4 nos of 10 paisa coin = 10 paisa × 4 = 40 paisa
- 3 nos of 5 paisa coin = 5 paisa × 3 = 15 paisa

Total = 105 paisa
= 1.05 Taka

Ans: 1.05 Taka

Example 3. Add:

a. 47 Taka 20 paisa + 28 Taka 50 paisa = 75 Taka 70 paisa
(b) 85.25 Taka + 63.10 Taka = 148.35 Taka
(c) 8.40 Taka + 25.75 Taka + 47.15 Taka = 81.30 Taka

Ans: 75 Taka 70 paisa
Ans: 148.35 Taka
Ans: 81.30 Taka

Example 4. Subtract:

a. 97 Taka 50 paisa − 25 Taka 25 paisa = 72 Taka 25 paisa
(b) 38.75 Taka − 26.20 Taka = 12.55 Taka
(c) 60.00 Taka − 35.40 Taka = 24.60 Taka

Ans: 72 Taka 25 paisa
Ans: 12.55 Taka
Ans: 24.60 Taka
Example 5: Rubi had Tk 50.75. Her father gave her Tk 80 for buy to books. How much Taka does she have now?

Solution: Rubi had Tk 50.75
Her father gave her + Tk 80.00
Total Tk 130.75

Answer: Tk 130.75

Example 6: Ajoy bought some fishes at Tk 57.50 from the market. He gave Tk 100 to the fishseller. How much money the fishseller will return?

Solution: 100.00 Taka
−57.50 Taka
42.50 Taka

Ans: 42.50 Taka

Example 7: The price of one goose is 100 Taka. The cost of one hen is 90.75 Taka. Raju bought one swan and one hen. He gave 500 Taka to the shopkeeper. How many takes will the shopkeeper return?

Solution: The cost of goose 100.00 Taka 500.00 Taka
The cost of hen 90.75 Taka −190.75 Taka
Total cost 190.75 Taka 309.25 Taka

Ans: 309.25 Taka
Exercise - 8

1. Write in number:
   Seventy paisa, Nine paisa, Seven taka Three paisa, Eighty taka, One hundred Eighty seven taka ninety paisa, Ninety two taka seven paisa.

2. Write in words:
   0.06 Taka, 309 Taka, 7.19 Taka, 299.99 Taka, 547.50 Taka

3. a. How much paisa will you get by adding 55 paisa, 15 paisa and 20 paisa?
   b. How much the total will be by adding 4 nos of 10 paisa coin, s and 6 nos of 5 paisa coin?
   c. How much the total will be by adding 5 nos of 25 paisa coin and 6 nos of 5 paisa coin?

4. Add:
   a. 45 Taka 50 paisa
   b. 57.08 Taka
   c. 526.27 Taka
   + 60 Taka 25 paisa
   + 25.27 Taka
   + 127.28 Taka
   
   d. 205.75 Taka
   e. 28.03 Taka
   f. 460.75 Taka
   + 25.08 Taka
   17.78 Taka
   + 2.25 Taka
   + 83.50 Taka

5. Subtract:
   a. 85 Taka 75 paisa
   b. 31.87 Taka
   c. 100.10 Taka
   −16 Taka 50 paisa
   −15.25 Taka
   −71.38 Taka
6. Karim bought rice for Tk 17.50 and pulse for Tk 37.25. How much did he spend in total?

7. Titu bought 2 khatas at Tk 35.75. He gave a 50 Taka note to the shopkeeper. How much money will the shopkeeper return?

8. Babul bought a basket of mangoes. He gave one note of 50 Taka and 3 notes of 20 Taka to the mangoseller. What in the price of that basket of mango?

9. How much greater a note of 100 Taka is than a note of 20 Taka?

10. How much less is 1 note of 50 Taka than 1 note of 500 Taka?

11. The price of a khata is a Tk 15.50 and the price of a pen is Tk 10.00. If the shopkeeper is given a 50 taka note, how much will be return?

12. How much greater is 2 notes of 100 taka than 3 notes of 50 taka?
# FRACTIONS

## Concept of Fractions

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{1}{2}$</td>
<td>Half or Half parts or, one part out of two</td>
</tr>
<tr>
<td>$\frac{1}{3}$</td>
<td>One-third or, one part out of three</td>
</tr>
<tr>
<td>$\frac{1}{4}$</td>
<td>One-fourth or, one part out of four</td>
</tr>
<tr>
<td>$\frac{2}{3}$</td>
<td>Two-thirds or two parts out of three</td>
</tr>
</tbody>
</table>

![Fraction illustrations](image-url)
## Fractions

### Concept of Fractions

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{3}{4} ) or three -fourths or three parts out of four</td>
<td></td>
</tr>
<tr>
<td>( \frac{4}{5} ) or four -fifths or four parts out of five</td>
<td></td>
</tr>
<tr>
<td>( \frac{1}{6} ) or one -sixth or one part out of six</td>
<td></td>
</tr>
<tr>
<td>( \frac{3}{8} ) or three -eighths or three parts out of eight</td>
<td></td>
</tr>
<tr>
<td>( \frac{2}{7} ) or two -sevenths or two parts out of seven</td>
<td></td>
</tr>
<tr>
<td>( \frac{2}{9} ) or two -nineths or two parts out of nine</td>
<td></td>
</tr>
</tbody>
</table>

**Note**: A line (–) has been drawn to write simple fraction. The total number of parts have been written below the line and the parts under consideration have been written above the line.
Shade $\frac{1}{2}$ portion of the following figures by a pencil:

Shade $\frac{1}{3}$ portion of the following figures by a pencil:

Shade $\frac{1}{4}$ portion of the following figures by a pencil:

Shade $\frac{2}{3}$ portion of the following figures by a pencil:
Look at the shaded part of each picture. Write in number and word how much a shaded part is? (one in done for you)

<table>
<thead>
<tr>
<th>Figure</th>
<th>Write in digit</th>
<th>Write in words</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Triangle" /></td>
<td>$\frac{1}{2}$</td>
<td>Half</td>
</tr>
<tr>
<td><img src="image2.png" alt="Hexagon" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image3.png" alt="Circle" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image4.png" alt="Circle" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image5.png" alt="Rectangle" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image6.png" alt="Square" /></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

*Note: Images of figures are placeholders for actual images.*
Concept of a part

\[ \frac{1}{2} \text{ of } 12 = 6 \]

\[ \frac{1}{3} \text{ of } 12 = 4 \]

\[ \frac{1}{4} \text{ of } 12 = 3 \]

\[ \frac{1}{6} \text{ of } 12 = 3 \]

\[ \frac{1}{2} \text{ of } 16 = 8 \]

\[ \frac{1}{4} \text{ of } 16 = 4 \]

\[ \frac{1}{8} \text{ of } 16 = 2 \]
<table>
<thead>
<tr>
<th>Expression</th>
<th>Calculation</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6 = 2 \times 3 = 6 = 3 \times 2$</td>
<td>$6 \div 2 = 3$ again $6 \div 3 = 2$</td>
<td>$2$</td>
</tr>
<tr>
<td>$\frac{1}{2}$ of $6$</td>
<td>$\frac{1}{3}$ of $6$</td>
<td>$2$</td>
</tr>
<tr>
<td>$8 = 2 \times 4 = 4 \times 2$</td>
<td>$8 \div 2 = 4$, $8 \div 4 = 2$</td>
<td>$2$</td>
</tr>
<tr>
<td>$\frac{1}{2}$ of $8$</td>
<td>$\frac{1}{4}$ of $8 = 2$</td>
<td>$2$</td>
</tr>
<tr>
<td>$10 = 2 \times 5 = 5 \times 2$</td>
<td>$10 \div 2 = 5$, $10 \div 5 = 2$</td>
<td>$2$</td>
</tr>
<tr>
<td>$\frac{1}{2}$ of $10$</td>
<td>$\frac{1}{5}$ of $10$</td>
<td>$2$</td>
</tr>
<tr>
<td>$15 = 3 \times 5 = 5 \times 3$</td>
<td>$15 \div 3 = 5$, $15 \div 5 = 3$</td>
<td>$3$</td>
</tr>
<tr>
<td>$\frac{1}{3}$ of $15$</td>
<td>$\frac{1}{5}$ of $15$</td>
<td>$3$</td>
</tr>
<tr>
<td>$20 = 4 \times 5 = 5 \times 4$</td>
<td>$20 \times 4 = 5$, $20 \div 5 = 4$</td>
<td>$4$</td>
</tr>
<tr>
<td>$\frac{1}{4}$ of $20$</td>
<td>$\frac{1}{5}$ of $20$</td>
<td>$4$</td>
</tr>
<tr>
<td>$30 = 5 \times 6 = 6 \div 5$</td>
<td>$30 \div 5 = 6$, $30 \div 6 = 5$</td>
<td>$5$</td>
</tr>
<tr>
<td>$\frac{1}{5}$ of $30$</td>
<td>$\frac{1}{6}$ of $30$</td>
<td>$5$</td>
</tr>
<tr>
<td>$42 = 6 \times 7 = 7 \times 6$</td>
<td>$42 \div 6 = 7$, $42 \div 7 = 6$</td>
<td>$6$</td>
</tr>
<tr>
<td>$\frac{1}{6}$ of $42$</td>
<td>$\frac{1}{7}$ of $42$</td>
<td>$6$</td>
</tr>
<tr>
<td>$54 = 6 \times 9 = 9 \times 6$</td>
<td>$54 \div 6 = 9$, $54 \div 9 = 6$</td>
<td>$6$</td>
</tr>
<tr>
<td>$\frac{1}{6}$ of $54$</td>
<td>$\frac{1}{9}$ of $54$</td>
<td>$6$</td>
</tr>
</tbody>
</table>
### Fill in the empty boxes:

<table>
<thead>
<tr>
<th>56 = 7 x [ ] = 8 x [ ]</th>
<th>72 = [ ] x 9 = [ ] x 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/7 of 56 = [ ]</td>
<td>1/9 of 72 = [ ]</td>
</tr>
</tbody>
</table>

- 1/2 of 1 year or 12 months = 6 months
- 1/3 of 1 year or 12 months = [ ] months
- 1/4 of 1 year or 12 months = [ ] months
- 1/6 of 1 year or 12 months = [ ] months
- 1/2 of 1 month or 30 days = 15 days
- 1/3 of 1 month or 30 days = [ ] days
- 1/5 of 1 month or 30 days = [ ] days
- 1/6 of 1 day or 24 hours = [ ] days
- 1/2 of 1 day or 24 hours = 12 hours
- 1/3 of 1 day or 24 hours = [ ] hours
\[
\begin{align*}
\frac{1}{4} \text{ of 1 day or 24 hours} & = \underline{6} \quad \text{hours} \\
\frac{1}{6} \text{ of 1 day or 24 hours} & = \underline{4} \quad \text{hours} \\
\frac{1}{8} \text{ of 1 day or 24 hours} & = \underline{3} \quad \text{hours} \\
\frac{1}{2} \text{ of 1 hour or 60 minutes} & = \underline{30} \quad \text{minutes} \\
\frac{1}{3} \text{ of 1 hour or 60 minutes} & = \underline{20} \quad \text{minutes} \\
\frac{1}{4} \text{ of 1 hour or 60 minutes} & = \underline{15} \quad \text{minutes} \\
\frac{1}{5} \text{ of 1 hour or 60 minutes} & = \underline{12} \quad \text{minutes} \\
\frac{1}{6} \text{ of 1 hour or 60 minutes} & = \underline{10} \quad \text{minutes} \\
\frac{1}{10} \text{ of 1 hour or 60 minutes} & = \underline{6} \quad \text{minutes} \\
\frac{1}{2} \text{ of 1 taka or 100 paisa} & = \underline{50} \quad \text{paisa} \\
\frac{1}{4} \text{ of 1 taka or 100 paisa} & = \underline{25} \quad \text{paisa} \\
\frac{1}{5} \text{ of 1 taka or 100 paisa} & = \underline{20} \quad \text{paisa} \\
\frac{1}{10} \text{ of 1 taka or 100 paisa} & = \underline{10} \quad \text{paisa}
\end{align*}
\]
\[
\begin{align*}
\frac{1}{2} \text{ of 1 metre or 100 centimetre} &= \phantom{0}50 \text{ centimetre} \\
\frac{1}{4} \text{ of 1 metre or 100 centimetre} &= \phantom{00} \text{ centimetre} \\
\frac{1}{5} \text{ of 1 metre or 100 centimetre} &= \phantom{0} \text{ centimetre} \\
\frac{1}{10} \text{ of 1 metre or 100 centimetre} &= \phantom{00} \text{ centimetre} \\
\frac{1}{3} \text{ of 18} &= 6 \\
\frac{1}{5} \text{ of 25} &= 5 \\
\frac{1}{6} \text{ of 32} &= 8 \\
\frac{1}{3} \text{ of 1 year} &= 4 \text{ months} \\
\frac{1}{6} \text{ of 1 hour} &= \phantom{00} \text{ minutes} \\
\frac{1}{2} \text{ of 1 metre} &= 20 \text{ cm.} \\
\frac{1}{6} \text{ of 30} &= \phantom{0} \text{ } \\
\frac{1}{3} \text{ of 36} &= 9 \\
\frac{1}{3} \text{ of 1 month} &= \phantom{0} \text{ day} \\
\frac{1}{2} \text{ of 1 day} &= \phantom{0} \text{ hour} \\
\frac{1}{2} \text{ of 24} &= 8 \\
\frac{1}{6} \text{ of 36} &= \phantom{0} \text{ } \\
\frac{1}{3} \text{ of 1 taka} &= 25 \text{ paisa}
\end{align*}
\]
Denominator and Numerator of Fractions

The black portion inside the circle is \( \frac{3}{4} \) Here 4 is denominator (the total number of portion of the circle) and 3 is numerator (the number of black portion)

Note: The numeral above the line is numerator and the number below the line is denominator.

In the fraction \( \frac{2}{5} \), 5 is denominator and 2 is numerator.

**Fill in the following** boxes (one is done for you)

- In the fraction \( \frac{3}{8} \), ___ \( 8 \) denominator and ___ \( 3 \) numerater
- In the fraction \( \frac{3}{5} \), ___ and ___ 5
- In the fraction \( \frac{7}{8} \), ___ and 7

If 7 is numerator and 9 is denominator, then the fraction will be ___
If 6 is numerator and 5 is denominator, then the fraction will be ___
If 5 is numerator and 7 is denominator, then the fraction will be ___
If 8 is denominator and 7 is numerator, then the fraction will be ___
If 9 is denominator and 8 is numerator, then the fraction will be ___
Equivalent Fractions

The fractions $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$, $\frac{5}{10}$ are equivalent.

Because, the portions $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$, $\frac{5}{10}$ are equal to each other.

$\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$, $\frac{5}{10}$ are equivalent fractions.

$\frac{1}{3}$, $\frac{2}{6}$, $\frac{3}{9}$ are equivalent fractions.
Identifying Equivalent Fractions

\[ \frac{1}{3}, \frac{2}{6} \] are equivalent fractions

\[ \therefore \frac{1}{3} = \frac{2}{6} \]

Here, \( \frac{1}{3} \times \frac{2}{6} \rightarrow 3 \times 2 = 6 \)

\[ \frac{2}{4}, \frac{3}{6} \] are equivalent fractions

\[ \therefore \frac{2}{4} = \frac{3}{6} \]

Here, \( \frac{1}{4} \times \frac{3}{6} \rightarrow 4 \times 3 = 12 \)

\[ \frac{1}{2}, \frac{3}{4} \] are not equivalent fractions

\[ \therefore \frac{1}{2} \neq \frac{3}{4} \] are not equal

Here, \( \frac{1}{2} \times \frac{3}{4} \rightarrow 2 \times 3 = 6 \)
\[
\frac{2}{4} \text{ of } 8 = 4
\]
\[
\frac{4}{8} \text{ of } 8 = 4
\]
\[
\frac{2}{4}, \frac{4}{8} \text{ equivalent fractions}
\]
\[
\therefore \frac{2}{4} = \frac{4}{8}
\]
Here, \[
\frac{2}{4} \quad 4 \quad 4 \times 4 = 16
\]
\[
\frac{4}{8} \quad 2 \times 8 = 16
\]
\[
\frac{3}{4} \text{ of } 12 = 9
\]
\[
\frac{4}{6} \text{ of } 12 = 8
\]
Here, \[
\frac{3}{4} \quad 4 \quad 4 \times 4 = 16
\]
\[
\frac{4}{6} \quad 3 \times 6 = 18
\]
\[
\therefore \frac{3}{4}, \frac{4}{6} \text{ are not equivalent fractions}
\]
\[
\therefore \frac{3}{4}, \frac{4}{6} \text{ are not equal.}
\]

Formation of equivalent fractions

Equivalent fractions of \(\frac{1}{2}\):

\[
\frac{1}{2} = \frac{1 \times 2}{2 \times 2} = \frac{2}{4}
\]
\[
\frac{1}{2} = \frac{1 \times 3}{2 \times 3} = \frac{3}{6}
\]
\[
\frac{1}{2} = \frac{1 \times 4}{2 \times 4} = \frac{4}{8}
\]
\[
\frac{1}{2} = \frac{1 \times 5}{2 \times 5} = \frac{5}{10}
\]
\[
\frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{5}{10} \text{ etc. are equivalent fractions of } \frac{1}{2}.
\]
Equivalent fractions of \( \frac{1}{3} \):
\[
\frac{1}{3} = \frac{1 \times 2}{3 \times 2} = \frac{2}{6} ; \\
\frac{1}{3} = \frac{1 \times 3}{3 \times 3} = \frac{3}{9} ; \\
\frac{1}{3} = \frac{1 \times 4}{3 \times 4} = \frac{4}{12} ; \\
\frac{1}{3} = \frac{1 \times 5}{3 \times 5} = \frac{5}{15} .
\]

\( \frac{2}{6} , \frac{3}{9} , \frac{4}{12} , \frac{5}{15} \) etc. are equivalent fractions of \( \frac{1}{3} \).

Equivalent fraction of \( \frac{2}{3} \):
\[
\frac{2}{3} = \frac{2 \times 2}{3 \times 2} = \frac{4}{6} ; \\
\frac{2}{3} = \frac{2 \times 3}{3 \times 3} = \frac{6}{9} ; \\
\frac{2}{3} = \frac{2 \times 4}{3 \times 4} = \frac{8}{12} ; \\
\frac{2}{3} = \frac{2 \times 5}{3 \times 5} = \frac{10}{15} .
\]

\( \frac{4}{6} , \frac{6}{9} , \frac{8}{12} , \frac{10}{15} \) etc. are equivalent fractions of \( \frac{2}{3} \).

Equivalent fractions of \( \frac{1}{4} \):
\[
\frac{1}{4} = \frac{1 \times 2}{4 \times 2} = \frac{2}{8} ; \\
\frac{1}{4} = \frac{1 \times 3}{4 \times 3} = \frac{3}{12} ; \\
\frac{1}{4} = \frac{1 \times 4}{4 \times 4} = \frac{4}{16} ; \\
\frac{1}{4} = \frac{1 \times 5}{4 \times 5} = \frac{5}{20} ;
\]

\( \frac{2}{8} , \frac{3}{12} , \frac{4}{16} , \frac{5}{20} \) etc. are equivalent fractions of \( \frac{1}{4} \).
1. Find out 4 equivalent fractions of each of the following fractions (one is done for you):

   a. \( \frac{2}{3}, \frac{4}{6}, \frac{6}{9}, \frac{8}{12}, \frac{10}{15} \),

   b. \( \frac{3}{4} \),

   c. \( \frac{3}{5} \),

   d. \( \frac{5}{6} \),

   d. \( \frac{2}{7} \),

2. Fill in the empty boxes (The first one in done for you):

   a. \( \frac{1}{2} = \frac{4}{8} ; \frac{1}{2} = \frac{\Box}{6} ; \frac{1}{2} = \frac{7}{\Box} ; \frac{1}{2} = \frac{3}{\Box} ; \)

   b. \( \frac{1}{3} = \frac{5}{\Box} ; \frac{1}{5} = \frac{2}{\Box} ; \frac{2}{5} = \frac{\Box}{10} ; \frac{3}{4} = \frac{\Box}{8} ; \)

   c. \( \frac{1}{6} = \frac{3}{\Box} ; \frac{1}{7} = \frac{3}{\Box} ; \frac{1}{7} = \frac{\Box}{14} ; \frac{4}{5} = \frac{\Box}{15} ; \)
3. Write the answer in the empty boxes by identifying whether each fraction below is equivalent or not (The first two are done for you):

a. \( \frac{3}{4}, \frac{6}{8} \)

\[
\begin{array}{c}
\frac{3}{4} \rightarrow \frac{6}{8} \\
\frac{4}{8} \rightarrow \frac{3}{8} = 24
\end{array}
\]

Equivalent

b. \( \frac{4}{6}, \frac{1}{3} \)

\[
\begin{array}{c}
\frac{4}{6} \rightarrow \frac{1}{3} \\
\frac{6}{1} = 6 \rightarrow \frac{4}{3} = 12
\end{array}
\]

Not equivalent

c. \( \frac{3}{6}, \frac{4}{8} \)


d. \( \frac{1}{7}, \frac{2}{14} \)


e. \( \frac{3}{6}, \frac{6}{12} \)


f. \( \frac{2}{3}, \frac{3}{6} \)

Equivalent fractions of 1

\[
\begin{array}{c}
1 = \frac{1}{1} \\
\frac{3}{3} \\
\frac{4}{4}
\end{array}
\]

\[
\begin{array}{c}
1 \times 2 = 2 \\
1 \times 3 = 3 \\
1 \times 4 = 4
\end{array}
\]

\[
\begin{array}{c}
2 \times 1 = 2 \\
3 \times 1 = 3 \\
4 \times 1 = 4
\end{array}
\]

\[
\therefore \frac{2}{2}, \frac{3}{3}, \frac{4}{4} \text{ etc. each fraction is equivalent of 1.}
\]

That is, \( 1 = \frac{1}{1} = \frac{2}{2} = \frac{3}{3} = \frac{4}{4} \text{ etc.} \)
Comparison of Fractions

\[ \frac{3}{4} \]

\[ \frac{3}{4} \text{ is bigger than } \frac{2}{4}; \text{ i.e. } \frac{3}{4} > \frac{2}{4} \]

Again,

\[ \frac{2}{4} \text{ is smaller than } \frac{3}{4}; \text{ i.e. } \frac{2}{4} < \frac{3}{4} \]

\[ \frac{3}{8} \]

\[ \frac{3}{8} \text{ is smaller than } \frac{3}{8}; \text{ i.e. } \frac{3}{8} < \frac{5}{8} \]

Again,

\[ \frac{5}{8} \text{ is bigger than } \frac{3}{8}; \text{ i.e. } \frac{5}{8} > \frac{3}{8} \]

\[ \frac{5}{8} = 5 \text{ parts out of 8 parts} \quad 5 > 3 \quad \therefore \quad \frac{5}{8} > \frac{3}{8} \]

\[ \frac{3}{8} = 3 \text{ parts out of 8 parts} \]

\[ \frac{4}{9} = 4 \text{ parts out of 9 parts} \quad 4 < 7 \quad \therefore \quad \frac{4}{9} < \frac{7}{9} \]

\[ \frac{7}{9} = 7 \text{ parts out of 9 parts} \]

\[ \frac{7}{15} = 7 \text{ parts out of 15 parts} \quad 7 < 6 \quad \therefore \quad \frac{7}{15} > \frac{6}{15} \]

\[ \frac{6}{15} = 6 \text{ parts out of 15 parts} \]
Addition of fractions

\[
\frac{1}{2} + \frac{1}{2} = 1
\]

But, \( 1 = \frac{2}{2} = \frac{1+1}{2} \)

\[\therefore \frac{1}{2} + \frac{1}{2} = \frac{1+1}{2}\]

\[
\frac{1}{3} + \frac{1}{3} = \frac{2}{3}
\]

But, \( \frac{2}{3} = \frac{1+1}{3} \)

\[\therefore \frac{1}{3} + \frac{1}{3} = \frac{1+1}{3}\]

\[
\frac{2}{5} + \frac{1}{5} = \frac{3}{5}
\]

But, \( \frac{3}{5} = \frac{2+1}{5} \)

\[\therefore \frac{2}{5} + \frac{1}{5} = \frac{2+1}{5}\]

\[
\frac{5}{8} + \frac{2}{8} = \frac{7}{8}
\]

But, \( \frac{7}{8} = \frac{5+2}{8} \)

\[\therefore \frac{5}{8} + \frac{2}{8} = \frac{5+2}{8}\]

\[
\frac{2}{6} + \frac{3}{6} = \frac{2+3}{6} = \frac{5}{6}
\]

\[
\frac{4}{9} + \frac{3}{9} = \frac{4+3}{9} = \frac{7}{9}
\]
\[
\frac{3}{8} + \frac{1}{8} = \frac{3+1}{8} = \frac{4}{8} = \frac{1}{2}
\]

Because, \(\frac{4}{8}\) and \(\frac{1}{2}\) are equivalent fractions.

\[
\frac{5}{12} + \frac{4}{12} = \frac{5+4}{12} = \frac{9}{12} = \frac{3}{4}
\]

Because, \(\frac{9}{12}\) and \(\frac{3}{4}\) are equivalent fractions.

---

**Fill in the boxes (The first one in done for you):**

1. \(\frac{4}{11} + \frac{5}{11} = \frac{9}{11}\)

2. \(\frac{1}{4} + \frac{2}{4} = \frac{3}{4}\)

3. \(\frac{2}{7} + \frac{3}{7} = \frac{5}{7}\)

4. \(\frac{5}{8} + \frac{3}{6} = \frac{2}{3}\)

5. \(\frac{7}{12} + \frac{3}{12} = \frac{5}{6}\)

6. \(\frac{9}{14} + \frac{4}{14} = \frac{13}{14}\)

7. \(\frac{7}{15} + \frac{4}{15} = \frac{11}{15}\)

8. \(\frac{5}{16} + \frac{9}{16} = \frac{7}{8}\)

9. \(\frac{9}{19} + \frac{5}{19} = \frac{14}{19}\)

10. \(\frac{7}{20} + \frac{9}{20} = \frac{3}{2}\)

11. \(\frac{8}{25} + \frac{9}{25} = \frac{17}{25}\)

12. \(\frac{7}{12} + \frac{4}{12} = \frac{11}{12}\)
Subtraction of Fractions

\[
\frac{4}{5} - \frac{2}{5} = \frac{2}{5}
\]
Again, \( \frac{2}{5} = \frac{4 - 2}{5} \)

\[
\therefore \quad \frac{4}{5} - \frac{2}{5} = \frac{4 - 2}{5} = \frac{2}{5}
\]

\[1 = \frac{3}{3}\]

\[
1 - \frac{2}{3} = \frac{1}{3}
\]
Again, \( \frac{1}{3} = \frac{3 - 2}{3} \)

\[
\therefore \quad 1 - \frac{2}{3} = \frac{3}{3} - \frac{2}{3} = \frac{3 - 2}{3} = \frac{1}{3}
\]
\[
\begin{align*}
\frac{7}{9} - \frac{5}{9} &= \frac{7-5}{9} = \frac{2}{9} \\
1 - \frac{2}{5} &= \frac{5}{5} - \frac{2}{5} = \frac{5-2}{5} = \frac{3}{5}
\end{align*}
\]

\[
\begin{align*}
\frac{5}{8} - \frac{3}{8} &= \frac{5-3}{8} = \frac{2}{8} = \frac{1}{4} \\
\frac{7}{12} - \frac{5}{12} &= \frac{7-5}{12} = \frac{2}{12} = \frac{1}{6}
\end{align*}
\]

Because, \(\frac{2}{8}\) and \(\frac{1}{4}\) are equivalent fractions.

Because, \(\frac{2}{12}\) and \(\frac{1}{6}\) are equivalent fractions.

**Fill in the boxes (The first one in done for you):**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(\frac{8}{12} - \frac{3}{12}) =</td>
<td>(\frac{5}{12})</td>
</tr>
<tr>
<td>2.</td>
<td>(\frac{7}{13} - \frac{5}{13}) =</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>(\frac{9}{10} - \frac{5}{10}) =</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>(1 - \frac{4}{9}) =</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>(1 - \frac{7}{8}) =</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>(\frac{8}{15} - \frac{1}{15}) =</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>(\frac{9}{20} - \frac{7}{20}) =</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>(\frac{7}{25} - \frac{2}{25}) =</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>(\frac{9}{31} - \frac{8}{31}) =</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>(\frac{9}{12} - \frac{7}{12}) =</td>
<td></td>
</tr>
</tbody>
</table>
Exercise-9

1. Write the following fractions in (digits):
   a. the fourths,    b. five - sevenths,    c. three - eights,
   d. nine elevenths e. seven - fifteenth,  f. eight twenty ninth.

2. Write the following fractions in words:
   a. \(\frac{3}{5}\)  b. \(\frac{7}{8}\)  c. \(\frac{4}{15}\)  d. \(\frac{5}{22}\)  e. \(\frac{7}{33}\)  f. \(\frac{9}{39}\)

3. a. \(\frac{3}{4}\) of 8 = ?  b. \(\frac{2}{3}\) of 9 = ?
   c. \(\frac{1}{3}\) of 12 = ?  d. \(\frac{2}{6}\) of 12 = ?
   e. \(\frac{1}{4}\) of 20 = ?  f. \(\frac{3}{5}\) of 25 = ?

4. a. \(\frac{1}{2}\) of 1 year = how many months?
   b. \(\frac{1}{2}\) of 1 month = how many days?
   c. \(\frac{1}{4}\) of 1 day = how many hours?
   d. \(\frac{1}{4}\) of 1 Taka = how many paisa?
   e. \(\frac{1}{10}\) of 1 metre = how many centimetres?
   f. \(\frac{1}{5}\) of 1 hour = how many minutes?
5. Identify which of the following pair of fractions are equivalent or not equivalent?
   a. $\frac{1}{2}, \frac{2}{4}$  
   b. $\frac{3}{5}, \frac{6}{10}$  
   c. $\frac{2}{7}, \frac{3}{7}$  
   d. $\frac{3}{4}, \frac{3}{8}$  
   e. $\frac{4}{5}, \frac{2}{3}$  
   f. $\frac{4}{6}, \frac{8}{12}$  
   g. $\frac{2}{6}, \frac{3}{12}$

6. Compare the following fractions and express in words:
   a. $\frac{3}{4} > \frac{1}{4}$  
   b. $\frac{2}{5} < \frac{3}{5}$  
   c. $\frac{7}{10} > \frac{5}{10}$  
   d. $\frac{7}{10} < \frac{9}{10}$

7. Compare the following fractions & write the symbols of bigger or smaller in the boxes:
   a. $\frac{5}{6} < \frac{3}{6}$  
   b. $\frac{5}{8} < \frac{7}{8}$  
   c. $\frac{7}{12} < \frac{9}{12}$  
   d. $\frac{7}{16} > \frac{5}{16}$  
   e. $\frac{6}{25} > \frac{9}{25}$  
   f. $\frac{8}{21} < \frac{5}{21}$

8. Add:
   a. $\frac{3}{4} + \frac{1}{8}$  
   b. $\frac{3}{5} + \frac{1}{5}$  
   c. $\frac{2}{6} + \frac{3}{6}$  
   d. $\frac{5}{7} + \frac{1}{7}$  
   e. $\frac{5}{11} + \frac{3}{11}$  
   f. $\frac{9}{13} + \frac{2}{13}$  
   g. $\frac{8}{20} + \frac{5}{20}$  
   h. $\frac{7}{25} + \frac{5}{25}$  
   i. $\frac{2}{31} + \frac{8}{31}$

9. Subtract:
   a. $\frac{3}{7} - \frac{2}{7}$  
   b. $\frac{7}{9} - \frac{5}{9}$  
   c. $1 - \frac{1}{3}$  
   d. $1 - \frac{5}{6}$  
   e. $\frac{8}{18} - \frac{5}{18}$  
   f. $\frac{5}{21} - \frac{4}{21}$
Measurement

Measures of length

1 Centimetre of 1 Cm

Unit for measuring length: Metre

1 metre = 100 centimetre or Cm

Fill in the boxes by looking at the scale:

[Diagram showing various objects with measurements]
Ribbon or Tape

9 Cm

PI. Insert the Pictures

Lenth cm
Height cm
Width cm
Lenth cm
Width cm
Units of Measuring Length

100 Centimetre = 1 Metre or 1 m
1000 Metre = 1 Kilometre or 1 km

Fill in the empty boxes (Two are done for you):

4 metre 20 centimetre = 420 centimetre
8 metre = __ centimetre
5 metre 50 centimetre = __ centimetre
2 kilometre 500 metre = 2500 metre
4 kilometre = __ metre
3 kilometre 200 metre = __ metre
8 kilometre 300 metre = __ metre

Example 1: Express 25 metre in centimetre

Solution: 1 metre = 100 centimetre
∴ 25 metre = 25 \times 100 centimetre = 2500 centimetre
Ans: 2500 centimetre

Example 2: Express 4 kilometre in metre

Solution: 1 kilometre = 1000 metre
∴ 4 kilometre = 4 \times 1000 metre = 4000 metre
Ans: 4000 metre

Example 3: Express 22 metre 25 centimetre in centimetre

Solution: 22 metre 25 centimetre
= 22 \times 100 centimetre + 25 centimetre
= 2200 centimetre + 25 centimetre
= 2225 centimetre
Ans: 2225 centimetre
Measurement of Weight

1 Kilogram or 1 Kg

Unit of measurement of weight: Gram
1000 gram - 1 Kilogram or 1 Kg
### Match by drawing lines (One is done for you)

<table>
<thead>
<tr>
<th>Weight Description</th>
<th>Weight (gm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Kilogram</td>
<td>2500 gm</td>
</tr>
<tr>
<td>2 200 gm &amp; 1 50 gm wt</td>
<td>3000 gm</td>
</tr>
<tr>
<td>1 500 gm, 2 200 gm &amp; 1 50 gm wts</td>
<td>3050 gm</td>
</tr>
<tr>
<td>1 1 kg, 1, 500 gm and 1 100 gm wt</td>
<td>250 gm</td>
</tr>
<tr>
<td>7 kg</td>
<td>1 kg 600 gm</td>
</tr>
<tr>
<td>2 kg 500 gm</td>
<td>450 gm</td>
</tr>
<tr>
<td>3 kg 50 gm</td>
<td>1950 gm</td>
</tr>
<tr>
<td>1 kg 950 gm</td>
<td>7000 gm</td>
</tr>
</tbody>
</table>

**Diagram:**
- 500 gm + 200 gm + 200 gm + 50 gm = 950 gm
- 1 kg + 500 gm + 200 gm + 100 gm + 50 gm = 1 kg 850 gm
Example 1: Express 6 kg in gram

Solution: 
\[ 1 \text{ kg} = 1000 \text{ gm} \]
\[ \therefore 6 \text{ kg} = 6 \times 1000 \text{ gm} = 6000 \text{ gm} \]
Ans: 6000 gm

Example 2: Express 3 kg 750 gm in gm

Solution: 
\[ 1 \text{ kg} = 1000 \text{ gm} \]
\[ 3 \text{ kg} = 3 \times 1000 \text{ gm} \]
\[ = 3000 \text{ gm} \]
\[ + 750 \text{ gm} = 3750 \text{ gm} \]
Ans: 3750 gm

Example 3: How much is the total weight of a 1 kg wt., a 500 gm wt. and an 200 gm wt.?

Solution: 
One 1 kg wt = 1000 gm
One 500 gm wt = 500 gm
One 200 gm wt = 200 gm
\[ \text{Total} = 1700 \text{ gm} \]
Ans: 1700 gm

Example 4: A shopkeeper used Two 1 kg weights, one 200 gm wt for weighing one bag of potatoes. What is the weight of that bag of potatoes?

Solution: 
Two 1 kg weights = \( 2 \times 1000 \text{ gm} = 2000 \text{ gm} \)
Two 1 kg weights = 2000 gm
One 200 gm weights = 200 gm
\[ \text{Wt of 1 bag of potato} = 2200 \text{ gm} \]
Ans: 2200
Measurement of volume of Liquid

Measurement of litre

Unit of measuring volume of liquid: Litre
1 litre = 1000 millilitre

Unit of measuring volume of liquid: Litre
### Exercise- 10

1. **Match with correct units by drawing lines:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance of Faridpur from Dhaka</td>
<td>Metre</td>
</tr>
<tr>
<td>Length of a pencil</td>
<td>Litre</td>
</tr>
<tr>
<td>Length of a house</td>
<td>Millimetre</td>
</tr>
<tr>
<td>Weight of one bag of rice</td>
<td>Gram</td>
</tr>
<tr>
<td>One bottle Soyabeen oil</td>
<td>Kilometre</td>
</tr>
<tr>
<td>Weight of two small tomatoes</td>
<td>Kilogram</td>
</tr>
<tr>
<td>Volume of one teaspoon of water</td>
<td>Centimetre</td>
</tr>
</tbody>
</table>

2. **Fill in the empty boxes:**

   a. 1 kg = ____________ gm  
   b. 1 metre = __________ cm
   
   c. 1 kilometre = __________ metre  
   d. 1 m. 70 cm = __________ cm
   
   e. __________ milimetre = 1 litre  
   f. 2 kg 500 gm = __________ gm

3. **Express in centimetre:**

   a. 25 metre  
   b. 18 metre 72 cm  
   c. 47 metre 52 cm  
   d. 39 metre 20 cm

4. **Express in metre:**

   a. 3 kilometre  
   b. 10 kilometre  
   c. 5 kilometre 750 metre  
   d. 8 kilometre 500 metre

5. **Express in gram:**

   a. 7 kilogram  
   b. 3 kilogram 300 gm  
   c. 6 kilogram 500 gm  
   d. 8 kilogram 900 gm

6. Measure the length of your classroom by using metre tape & write in your khata.

7. Measure the length & width of the bench you sit on by using metre scale & write in your khata.

8. The weight of one bag of salt is 1 kg  50gm. What weights you need to weight the bag?
# Measures of time

## Reading time in a clock

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>![Clock 1]</td>
<td>![Clock 2]</td>
<td>![Clock 3]</td>
</tr>
<tr>
<td>12:00</td>
<td>3:00</td>
<td>9:00</td>
</tr>
</tbody>
</table>

## Write the time shown on the dials (one is done for you)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>![Clock 4]</td>
<td>![Clock 5]</td>
<td>![Clock 6]</td>
</tr>
<tr>
<td>1:00</td>
<td>6:00</td>
<td>10:00</td>
</tr>
<tr>
<td>![Clock 7]</td>
<td>![Clock 8]</td>
<td>![Clock 9]</td>
</tr>
<tr>
<td>5:00</td>
<td>11:00</td>
<td>8:00</td>
</tr>
</tbody>
</table>

- Forma-14, Mathematics, Class-3
# Reading the clock

<table>
<thead>
<tr>
<th>Time Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 minutes past 12</td>
<td><img src="image1.png" alt="Image" /></td>
</tr>
<tr>
<td>30 minutes past 1</td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td>45 minutes past 3</td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td>50 minutes past 7</td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>15 minutes past 9</td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td>8 minutes past 10</td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
<tr>
<td>20 minutes past 11</td>
<td><img src="image7.png" alt="Image" /></td>
</tr>
<tr>
<td>30 minutes past 12</td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
</tbody>
</table>

**Read the time and write (two have been done for you)**

<table>
<thead>
<tr>
<th>Time Description</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 minutes past 10</td>
<td><img src="image9.png" alt="Image" /></td>
</tr>
<tr>
<td>15 minutes past 7</td>
<td><img src="image10.png" alt="Image" /></td>
</tr>
</tbody>
</table>
## Addition and Subtraction of Measures of time

### Units of Measures of Time

<table>
<thead>
<tr>
<th>60 seconds</th>
<th>1 minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 minutes</td>
<td>1 hour</td>
</tr>
<tr>
<td>24 hours</td>
<td>1 day</td>
</tr>
<tr>
<td>7 days</td>
<td>1 week</td>
</tr>
<tr>
<td>30 days</td>
<td>1 month</td>
</tr>
<tr>
<td>12 months</td>
<td>1 year</td>
</tr>
<tr>
<td>365 days</td>
<td>1 year</td>
</tr>
</tbody>
</table>

#### Example 1.

Add:  
<table>
<thead>
<tr>
<th>Hour</th>
<th>Minute</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>9</td>
<td>30</td>
<td>28</td>
</tr>
</tbody>
</table>

Solution:  
<table>
<thead>
<tr>
<th>Hour</th>
<th>Minute</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>9</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>13</td>
<td>55</td>
<td>49</td>
</tr>
</tbody>
</table>

**Ans:** 13 Hours 55 minutes 49 seconds

Add:  
<table>
<thead>
<tr>
<th>Hour</th>
<th>Minute</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>12</td>
<td>20</td>
<td>35</td>
</tr>
</tbody>
</table>

Solution:  
<table>
<thead>
<tr>
<th>Hour</th>
<th>Minute</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>12</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>

**Ans:** 12 Hours 15 minutes 10 seconds

#### Example 3.

Rina reads 2 hours and 15 minutes in the morning and 3 hours and 30 minutes in the night. How much time does she read daily?

**Solution:**

<table>
<thead>
<tr>
<th>Hour</th>
<th>Minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>+ 3</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>45</td>
</tr>
</tbody>
</table>

**Ans:** 5 hours 45 minutes

#### Example 4.

Anu started for his uncle's house at 7:20 in the morning. He reached there at 9:50 in the morning. How much time was needed to reach his uncle's house?

**Solution:**

<table>
<thead>
<tr>
<th>Hour</th>
<th>Minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>50</td>
</tr>
<tr>
<td>- 7</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
</tr>
</tbody>
</table>

**Ans:** 2 hours 30 minutes
Exercise-11

1. Fill in the empty boxes:
   a. 3 days = ___ hour
   b. 2 hours = ___ minutes
   c. ___ day = 2 weeks
   d. 1 year = ___ day
   e. ___ month = 1 year
   f. ___ second = 1 minute

2. Add
   a. Minute Second
      4 23
      2 12
      ___ 35
   b. Minute Second
      7 15
      5 28
      ___ 43
   c. Hour Minute Second
      5 12 23
      3 25 26
      ___ 8 5 28
   d. Hour Minute Second
      9 19 12
      7 22 28

3. Subtract
   a. Minute Second
      9 7
      6 5
      ___ 4 2
   b. Minute Second
      15 27
      4 18
      ___ 11 9
   c. Hour Minute Second
      18 52 25
      7 16 17
      ___ 11 36
   d. Hour Minute Second
      15 17 30
      8 0 5
      ___ 7 30

4. Mr Mijan walks for 1 hour 20 minutes in the morning. In the afternoon he walks for 2 hours 15 minutes. How much time does he walk in total?

5. Kali's school breaks at 11.30 am. She takes 25 minutes to reach her home. At what time does she reach home?

6. Roni starts reading at 7.15 am. He finishes his lessons at 10.50 am. How much time does he read in total?

7. One day rain started at 8:25 in the morning. The rain stopped at 10:20 am. How long did it rain?
Uses of Calendar

Calendar

<table>
<thead>
<tr>
<th>Baisakh</th>
<th>1410</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sat</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>27</td>
<td>28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>November</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sat</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
</tr>
</tbody>
</table>

Here, 1\textsuperscript{st} of Baisakh month of 1410 Bangla year is Monday.

10\textsuperscript{th} of Baisakh month is Wednesday.

26\textsuperscript{th} of Baisakh month is Friday.

7\textsuperscript{th}, 14\textsuperscript{th}, 21\textsuperscript{st} and 28\textsuperscript{th} of Baisakh month are Sundays.

The dates of Thursdays of Baisakh month are 4, 11, 18 and 25.

There are 5 Mondays in the month of Baisakh.

In the calendar, there are:

a. Specific year  

b. Name of the month  

c. Name of the days  

d. Dates according to days.

Here, 1\textsuperscript{st} of November month of 2003 is Saturday.

14\textsuperscript{th} of November is Friday.

25\textsuperscript{th} of November is Tuesday.

The dates 2, 9, 16, 23 & 30 of November month are Sundays.

The dates of Saturdays of the month of November are 1, 8, 15, 22 & 29.

There are 4 Tuesdays in the month of November.
### Number of days of the Bangla month

<table>
<thead>
<tr>
<th>Months</th>
<th>No. of Days</th>
<th>Months</th>
<th>No. of Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baisakh</td>
<td>31</td>
<td>Kartik</td>
<td>30</td>
</tr>
<tr>
<td>Jaistha</td>
<td>31</td>
<td>Agrahawan</td>
<td>30</td>
</tr>
<tr>
<td>Ashar</td>
<td>31</td>
<td>Paush</td>
<td>30</td>
</tr>
<tr>
<td>Shravon</td>
<td>31</td>
<td>Magh</td>
<td>30</td>
</tr>
<tr>
<td>Bhadra</td>
<td>31</td>
<td>Falgun</td>
<td>30</td>
</tr>
<tr>
<td>Ashween</td>
<td>30</td>
<td>Chaitra</td>
<td>30</td>
</tr>
</tbody>
</table>

### Number of days of different months in the year 2003

<table>
<thead>
<tr>
<th>Months</th>
<th>No. of Days</th>
<th>Month</th>
<th>No. of Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>31</td>
<td>July</td>
<td>31</td>
</tr>
<tr>
<td>February</td>
<td>28</td>
<td>August</td>
<td>31</td>
</tr>
<tr>
<td>March</td>
<td>31</td>
<td>September</td>
<td>30</td>
</tr>
<tr>
<td>April</td>
<td>30</td>
<td>October</td>
<td>31</td>
</tr>
<tr>
<td>May</td>
<td>31</td>
<td>November</td>
<td>30</td>
</tr>
<tr>
<td>June</td>
<td>30</td>
<td>December</td>
<td>31</td>
</tr>
</tbody>
</table>

### Fill in the boxes (One is done for you):

- Fourth Baisakh of 1410 is **Thurs** day
- 23rd Baisakh of 1410 is **** day
- **1st** Monday of the Baisakh of 1410 is **** day
- The last Wednesday November of 2003 is **** date
- The number of Fridays is November 2003 is ****
- 20th November of 2003 is **** day
- The 5th month of Bangla year is ****
- The 7th month of English year is ****
- The 1st month of Bangla year is ****
- The next month of Falgun is ****
Geometric Shape

Cube
Cylinder
Sphere
Cone
Pyramid
Pyramid

Solids of different shapes

Cube/Shape
Cone shaped
Sphere shaped
Cylinder shaped
Pyramid shaped
Pyramid shaped
Match the name with the correct shape by drawing lines (One is done for you)

- Sphere
- Pyramid
- Circle
- Cube
- Cone
- Cylinder
Write the name of the shapes by looking at the figure of the solids (One is done for you)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Triangle

- **ABC** is a triangle. 
- **AB**, **BC** and **CA** are the three sides of the triangle.

### Triangle based on arms

- **ABC** is an **Equilateral triangle**. 
  - Because, 
  - **arm AB** = **arm BC** = **arm CA**.

### Equilateral Triangle

- **ABC** is an **Isosceles triangle**. 
  - Because, **arm AB** = **arm AC**

### Isosceles Triangle

- **ABC** is an **Obtuse triangle**. 
  - Because, none of the two arms are equal.
**Triangle according to sides**

Write the name of the triangles at the right (One is done for you)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Obtuse Triangle
Triangle according to sides

A postcard  The postcard cut is diagonally  Lines have been drawn on three sides by placing one portion on the paper. So, an obtuse triangle is formed.

Two points at AB and BC of the postcard with equal distance have been taken.  The postcard has been cut along the two points  A triangle is drawn by placing the cutt portion on the paper. ABC is an isosceles.

3 sticks  3 cm long each.  The shape of equilateral triangle has been formed by combining the ends of the three stricks.  Dots have been placed at the ends of the three sticks. The dots are trimmed with each other by using a scale. This is an equilateral triangle.
Quadrilateral

Quadrilaterals of different shapes

Put (✓) marks in the boxes at the right of the figures which are quadrilaterals. Put (x) marks in the boxes at the right of those that are not quadrilateral (Two are done for you)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="1" alt="Figure" /></td>
<td><img src="2" alt="Figure" /></td>
<td><img src="3" alt="Figure" /></td>
</tr>
<tr>
<td><img src="4" alt="Figure" /></td>
<td><img src="5" alt="Figure" /></td>
<td><img src="6" alt="Figure" /></td>
</tr>
<tr>
<td><img src="7" alt="Figure" /></td>
<td><img src="8" alt="Figure" /></td>
<td><img src="9" alt="Figure" /></td>
</tr>
<tr>
<td><img src="10" alt="Figure" /></td>
<td><img src="11" alt="Figure" /></td>
<td><img src="12" alt="Figure" /></td>
</tr>
<tr>
<td><img src="13" alt="Figure" /></td>
<td><img src="14" alt="Figure" /></td>
<td><img src="15" alt="Figure" /></td>
</tr>
<tr>
<td><img src="16" alt="Figure" /></td>
<td><img src="17" alt="Figure" /></td>
<td><img src="18" alt="Figure" /></td>
</tr>
<tr>
<td><img src="19" alt="Figure" /></td>
<td><img src="20" alt="Figure" /></td>
<td><img src="21" alt="Figure" /></td>
</tr>
</tbody>
</table>

Put (✓) marks in the boxes at the right of the figures which are quadrilaterals. Put (x) marks in the boxes at the right of those that are not quadrilateral (Two are done for you)
**Quadrilateral**

**Rectangular and Square Quadrilateral**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="https://via.placeholder.com/150" alt="Diagram" /></td>
<td>ABCD is a Rectangle or Rectangular Quadrilateral. Here, AB = CD, AD = BC</td>
</tr>
<tr>
<td><img src="https://via.placeholder.com/150" alt="Diagram" /></td>
<td>ABCD is a square or square shaped quadrilateral. Here, AB = BC = CD = DA and AC = BD.</td>
</tr>
</tbody>
</table>

Among the above figures, the shape of the bangle, the ring and the wheel is round. The top of the glass is round shaped.
### Exercise-12

1. **Match the names with the figures by drawing lines**

<table>
<thead>
<tr>
<th>Figure</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="example" alt="Triangle" /></td>
<td>Rectangle</td>
</tr>
<tr>
<td><img src="example" alt="Circle" /></td>
<td>Equilateral Triangle</td>
</tr>
<tr>
<td><img src="example" alt="Square" /></td>
<td>Circle</td>
</tr>
<tr>
<td><img src="example" alt="Rectangle" /></td>
<td>Obtuse Triangle</td>
</tr>
<tr>
<td><img src="example" alt="Isosceles Triangle" /></td>
<td>Square</td>
</tr>
<tr>
<td><img src="example" alt="Isosceles Triangle" /></td>
<td>Isosceles Triangle</td>
</tr>
</tbody>
</table>

2. Draw an obtuse triangle
3. Draw a rectangle or tectangular quadrilateral
4. Draw a square or square shaped quadrilateral
5. How many triangles are there in the next figure?