

Exercise 1

- (a) 10001 = Ten thousand and one

(b) 50146 = Fifty thousand, one hundred and forty six

(c) 69990 = Sixty nine thousand, nine hundred and ninety

(d) 198765 = One lakh, ninety eight thousand, seven hundred and sixty five
- (a) Ten thousand and forty-five = 10045

(b) Fifty thousand, three hundred = 50300

(c) One lakh = 100000

(d) Two lakh, ninety thousand and twelve = 290012
- (a) The smallest 4-digit number - 1000

(b) The greatest 5-digit number - 99999

(c) 98000 comes just after - 97999

(d) 32999 comes just before - 33000

(e) In Roman numerals, 14 - XIV

(f) In Roman numerals, 39 - XXXIX

(g) In Roman numerals, 26 - XXVI

(h) In Roman numerals, 18 - XVIII
- (a) The place value of 6 in 156014 - 6000

(b) The ~~the~~ place value of each digit in 34256 -
3 → 30000, 4 → 4000, 2 → 200, 5 → 50, 3 → 3
- (a) 67896 = 6 ten thousands + 7 thousands + 8 hundreds + 9 tens + 6 ones

(b) 390070 = 3 lakhs + 9 ten thousands + 0 thousands + 0 hundreds + 7 tens + 0 ones

6. Expanded form of 467895 \rightarrow

4 lakh + 6 ten thousands + 7 thousands + 8
hundreds + 9 tens + 5 ones

7. Short form of $(700000 + 60000 + 5000 + 400 + 30 + 2)$
is - 765432

8. (a) 79654, 79652, 79650, 79648, 79646, 79644 (-2)

(b) 10000, 10100, 10200, 10300, 10400, 10500 (+100)

(c) 97000, 98000, 99000, 100,000, 101,000, 102,000 (+1000)

9. The greatest 5-digit number can be formed with the
digits 7, 4, 5, 3 and 9 is \rightarrow 97543

The smallest \rightarrow 34579

10. Ascending order -

(48320, 84030, 123000, 83400, 48230)

\rightarrow 48230, 48320, ~~83400~~, 84030, 123000

11. (a) $78567 + 3426 + 40$

$$\begin{array}{r} \textcircled{+} \textcircled{+} \textcircled{+} \textcircled{+} \\ 78567 \\ 3426 \\ + 40 \\ \hline 82033 \end{array}$$

(b) $360079 + 82783 +$

$9250 + 75$

$$\begin{array}{r} \textcircled{+} \textcircled{+} \textcircled{+} \textcircled{+} \textcircled{+} \\ 360079 \\ 82783 \\ 9250 \\ + 75 \\ \hline 452187 \end{array}$$

12. (a) $40678 - 18959$

$$\begin{array}{r} \textcircled{3} \textcircled{9} \textcircled{16} \textcircled{6} \textcircled{12} \\ 40678 \\ - 18959 \\ \hline 21719 \end{array}$$

(b) $125380 - 76852$

$$\begin{array}{r} \textcircled{0} \textcircled{11} \textcircled{14} \textcircled{13} \textcircled{7} \textcircled{10} \\ 125380 \\ - 76852 \\ \hline \cancel{0}48528 \end{array}$$

13. (a) 751×35

$$\begin{array}{r} 751 \\ \times 35 \\ \hline 3755 \\ + 2253 \times \\ \hline 26285 \end{array}$$

(b) 1278×24

$$\begin{array}{r} 1278 \\ \times 24 \\ \hline 5112 \\ + 2556 \times \\ \hline 30672 \end{array}$$

(c) 594×1000

$$\begin{array}{r} 594 \\ \times 1000 \\ \hline 000 \\ 000 \times \\ + 594 \times \\ \hline 594000 \end{array}$$

14. (a) $68436 \div 12$

$$\begin{array}{r} 5703 \\ 12 \overline{) 68436} \\ \underline{-60} \\ 84 \\ \underline{-84} \\ 36 \\ \underline{-36} \\ 0 \end{array}$$

(b) $3432 \div 52$

$$\begin{array}{r} 66 \\ 52 \overline{) 3432} \\ \underline{-312} \\ 312 \\ \underline{-312} \\ 0 \end{array}$$

(c) $72000 \div 60$

$$\begin{array}{r} 1200 \\ 60 \overline{) 72000} \\ \underline{-60} \\ 120 \\ \underline{-120} \\ 0 \end{array}$$

15. (a) The factors of 18 \rightarrow 1, 2, 3, 6, 9, 18

(b) The factors of 30 \rightarrow 1, 2, 3, 5, 6, 10, 15, 30

16. (a) The first five multiples of 4 \rightarrow 4, 8, 12, 16, 20

(b) The first five multiples of 10 \rightarrow 10, 20, 30, 40, 50

17. (a) The HCF of 12 and 16 \rightarrow

$$\begin{array}{r} 2 \overline{) 12} \\ 2 \overline{) 6} \\ 3 \overline{) 3} \\ 1 \end{array}$$

$$\begin{array}{r} 2 \overline{) 16} \\ 2 \overline{) 8} \\ 2 \overline{) 4} \\ 2 \overline{) 2} \\ 1 \end{array}$$

$$12 = \underline{2} \times \underline{2} \times 3 \times \underline{1}$$

$$16 = \underline{2} \times \underline{2} \times 2 \times 2 \times \underline{1}$$

$$\therefore \text{HCF of } 12 \text{ and } 16 = 2 \times 2 \times 1 = 4$$

(b) The HCF of 15 and 35 \rightarrow

$$\begin{array}{r} 3 \overline{) 15} \\ 5 \overline{) 5} \\ 1 \end{array}$$

$$\begin{array}{r} 5 \overline{) 35} \\ 7 \overline{) 7} \\ 1 \end{array}$$

$$15 = 3 \times \underline{5} \times \underline{1}$$

$$35 = \underline{5} \times 7 \times \underline{1}$$

$$\therefore \text{HCF of } 15 \text{ and } 35 = 5 \times 1 = 5$$

18. (a) The LCM of 8 and 12 \rightarrow

$$\begin{array}{l} 2 \mid 8, 12 \\ 2 \mid 4, 6 \\ 2, 3 \end{array} \quad \therefore \text{LCM of 8 and 12} = 2 \times 2 \times 2 \times 3 \\ = 4 \times 6 = 24$$

(b) The LCM of 18 and 45 \rightarrow

$$\begin{array}{l} 3 \mid 18, 45 \\ 3 \mid 6, 15 \\ 2, 5 \end{array} \quad \therefore \text{LCM of 18 and 45} = 3 \times 3 \times 2 \times 5 \\ = 9 \times 10 = 90$$

19. $18 + 6 \div 2 + 5 \times 4$

$$= 18 + 3 + 20$$

$$= 36$$

20. (a) $\frac{7}{9} + 1\frac{2}{9} + \frac{1}{9}$

$$= \frac{7}{9} + \frac{11}{9} + \frac{1}{9}$$
$$= \frac{7+11+1}{9} = \frac{19}{9}$$

(b) $\frac{2}{15} + \frac{7}{25}$

$$= \frac{10+21}{75}$$
$$= \frac{31}{75}$$

$\left. \begin{array}{l} 5 \mid 15, 25 \\ 3, 5 \\ 5 \times 3 \times 5 \\ - 75 \end{array} \right\}$

21. (a) $\frac{9}{16} - \frac{3}{16}$

$$= \frac{9-3}{16} = \frac{6}{16}$$

(b) $3\frac{1}{4} - 1\frac{3}{8}$

$$= \frac{13}{4} - \frac{11}{8}$$
$$= \frac{26-11}{8} = \frac{15}{8}$$

$\left. \begin{array}{l} 2 \mid 4, 8 \\ 2 \mid 2, 4 \\ 1, 2 \\ 2 \times 2 \times 2 \times 1 \\ = 8 \end{array} \right\}$

22. (a) Common fraction of 0.1 $\rightarrow \frac{0.1 \times 10}{1 \times 10} = \frac{1}{10}$

(b) Common fraction of 0.03 $\rightarrow \frac{0.03 \times 100}{1 \times 100} = \frac{3}{100}$

(c) Common fraction of 1.01 $\rightarrow \frac{1.01 \times 100}{1 \times 100} = \frac{101}{100}$

(d) Common fraction of 0.007 $\rightarrow \frac{0.007 \times 1000}{1 \times 1000} = \frac{7}{1000}$

23.

A bundle contains 162 five-rupee notes.

$$\begin{array}{r} (13) (17) \\ 162 \\ \times 5 \\ \hline 810 \end{array}$$

∴ There is total $(162 \times 5) = 810$ rupees in the bundle.

Ans. There is 810 rupees in the bundle.

24.

There are 8 equally spaced lamp-posts on a straight road.

The distance between the first and last post is 73 m 50 cm $\therefore (73 \times 100) + 50 = 7350$ cm

∴ The distance between any two posts placed one after the other is $= (7350 \div 7)$
 $= 1050$ cm
 $= 10$ m 50 cm

$$\begin{array}{r} 1050 \\ 7 \overline{) 7350} \\ \underline{-7} \\ 835 \\ \underline{-35} \\ 800 \\ \underline{-800} \\ 0 \end{array}$$

Ans. The distance between any two posts placed one after the other is 10 m 50 cm.

25.

1 dozen = 12 copies

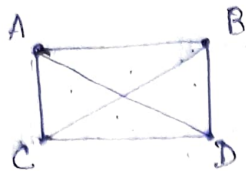
If the cost of 5 copies of a book is Rs. 125.

Then the cost of 1 copy of a book ~~is~~ ~~will be~~ $(125 \div 5)$
 $= 25$ Rs.

∴ The cost of 12 copies or 1 dozen copies of the same book ~~will be~~ is $= (25 \times 12) = \text{Rs. } 300$

Ans. The cost of a dozen copies of the same book is Rs. 300.

26.



By joining the points by line segments, there are 4 triangles can be formed.

 $\Delta ACD, \Delta CDB$
 $\Delta CBA, \Delta DBA$

27.

The supplementary angle of the angle of measure 75° is $\rightarrow (180 - 75)^\circ = 105^\circ$

The complementary angle of the angle of measure 75° is $\rightarrow (90 - 75)^\circ = 15^\circ$

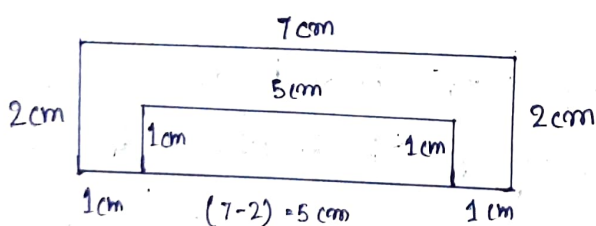
\therefore The difference between the supplementary angle and the complementary angle is $\rightarrow (105^\circ - 15^\circ) = 90^\circ$



29. The relation between the side of a square is ~~all~~ all sides of a square is equal in length.

The relation between the angles of a square is ~~each~~ each angles of a square is 90° .

30.



\therefore The perimeter of the given figure is =

$$\begin{aligned}
 & 2 \times (7+2) + 2 \times (5+1) - 5 \\
 & = 2 \times 9 + 2 \times 6 - 5 \\
 & = 18 + 12 - 5 \\
 & = 30 - 5 = 25 \text{ cm}
 \end{aligned}$$