

Section A

1. Classify the numbers as **natural numbers, whole numbers, rational numbers, integers**

$$87, 42, 0, -14, -2.8, \frac{1}{18} \quad (4)$$

Each question carries 1 mark .

2. Fill in the blanks:-

(a) $[-12 \times 5] \times \underline{\hspace{2cm}} = (-12) \times [5 \times -8]$ (6)

(b) $(-503) \div \underline{\hspace{2cm}} = -1$

(c) $-18 \times 0 = \underline{\hspace{2cm}}$

(d) $-10 \times 18 = \underline{\hspace{2cm}} \times -10$

(e) $0.728 \div 1000 = \underline{\hspace{2cm}}$

(f) $42 \div 100 = \underline{\hspace{2cm}}$

Each question carries 2 marks

1. Find the value of $|18 + |-18|| \div |14 + 4|$

2. If $P = \{1, 3, 5, 7, 9\}$ $Q = \{e, a, s, t\}$ find $n(P)$ and $n(Q)$

3. Evaluate :- (i) $15 \div |-4 + 3|$ (2)

(ii) $(-18) \times (-17)$ (2)

(iii) $(-450) \div (+15)$ (2)

(iv) $160 \div (-40) - 20 \div (-5)$ (2)

4. Simplify $16 \div \frac{2}{5}$

Section B

Each question carries 3 marks

1. Find the product :- 33.01×37

2. If $\frac{2}{15}$ of an estate worth ₹36000, what is the estate worth ?

3. If $U = \{x : x \text{ is an even number less than } 16\}$, $A = \{10, 12\}$
 $B = \{6, 8\}$. Write U in the roster form . Find A' , B' .
4. Find the value : (i) $3\frac{3}{5} \times 5\frac{1}{2}$ (3)
(ii) $6 - 3\frac{2}{5}$ (3)
5. Write 0.5151... in the rational form
6. Rohan bought 29.995 m of wire . He cut it into 7 equal pieces .
What is the length of each piece ?
7. Write the following sets in the Roster form and state whether the sets are equal or equivalent
- a. $A =$ Set of letters of the word " FOLLOW " .
 $B =$ Set of letters of the word " WOLF "
- b. $E =$ Even natural numbers less than 10 .
 $F =$ Odd natural numbers less than 9

Section C

Each question carries 4 marks.

1. Write in decimal form :- (a) $\frac{5}{8}$ (b) $\frac{8}{25}$
2. Simplify :- $\frac{5}{12} + 1\frac{1}{8} - \frac{1}{6}$
3. Find :- $36 - [20 - \{15 - (17 - 8 \div 4 \times 2)\}]$
4. Find 48.98×0.027
5. If $A = \{x : x \text{ is an integer in between } -5 \text{ and } 5\}$
 $B = \{x : x \text{ is a prime number less than } 6\}$
 $C = \{x : x \text{ is a whole number between } -5 \text{ and } 5\}$
Write the sets A, B, C . Also find $n(A)$, $n(B)$
6. Solve:- $\left(\frac{1}{3} + \frac{1}{7}\right) \div \left(\frac{1}{7} + \frac{1}{9}\right)$
7. Ram bought 250 toffees .He gave $\frac{2}{5}$ of these toffees to his sister and $\frac{1}{15}$ of the remaining to his brother . Find how many toffees are still left with him .
8. Represent $\frac{2}{5}$ and $-\frac{2}{5}$ on a number line.