

Muktangan English School & Jr. College, Pune - 9

Formative Written Test - I (2024 - 25)
Standard - VIISubject - Mathematics
Date - 13.8.2024Marks - 20
Time - 8.15 a.m. to 9.30 a.m.

Q.1 A) Fill in the blanks with correct alternatives and rewrite the sentences. [2]

1. _____ is neither a prime nor a composite number.

a) 3

b) 1

c) 2

2. The additive inverse of $\frac{3}{2}$ is _____.a) $\frac{3}{2}$ b) $\frac{2}{3}$ c) $-\frac{3}{2}$

B) State whether the following statements are true or false and rewrite the statements. [2]

1) If given line segments are equal in length then they are congruent.

2) The product of two positive integers is a negative integer.

Q. 2 Attempt any three of the following. [6]

1. Draw a line segment PQ of length 6.5 cm and draw its perpendicular bisector.

2. Multiply : a) $(-12) \times (-7)$ b) $6 \times (-8)$

3. Factorise 32 into prime numbers.

Solution :

$$32 = 2 \times \square$$

$$= 2 \times 2 \times \square$$

$$= 2 \times 2 \times \square \times 4$$

$$= 2 \times 2 \times 2 \times \square \times 2$$

4. Divide : a) $9 \div (-54)$ b) $100 \div 60$

Q. 3 Attempt any two of the following.

[6]

1. Draw an equilateral triangle with side 5.5 cm.
2. Find the H.C.F. of 15, 30, 90.

Solution :

3	15	30	90
5	<input type="text"/>	10	<input type="text"/>
	1	<input type="text"/>	<input type="text"/>

$$\begin{aligned} \text{H.C.F.} &= 3 \times \boxed{} \\ &= \boxed{} \end{aligned}$$

3. Write two divisions of integers such that the fractional form of each will be $\frac{-5}{7}$

Q. 4 Attempt any one of the following.

[4]

1. Construct ΔMNP such that $\iota(NP) = 5.2$ cm, $m\angle N = 70^\circ$, $m\angle P = 40^\circ$,
2. Find the smallest number which when divided by 8, 10, 12 and 14 gives a remainder of 5 every time.

Solution : To find this multiple,

we find the L. C. M. of the given divisors.

Solution :

2	8	10	12	14
2	4	<input type="text"/>	6	<input type="text"/>
	<input type="text"/>	5	<input type="text"/>	7

$$\begin{aligned} \therefore \text{L. C. M.} &= 2 \times 2 \times 2 \times 5 \times 3 \times \boxed{} \\ &= \boxed{} \end{aligned}$$

To the L. C. M. we add the remainder obtained every time.

Hence that number = L. C. M. + remainder

$$\begin{aligned} &= \boxed{} + 5 \\ &= \boxed{} \end{aligned}$$

