

**Class: VI**  
**Subject: Mathematics**  
**Topic: ASK1506FT02**  
**No. of Questions: 30**

1) The value of XLV in the Roman numeral system is equal to \_\_\_\_ in the Hindu-Arabic system?

- (A) 54
- (B) 45
- (C) 65
- (D) 56

Sol.(B)

$$\begin{aligned} \text{XLV} &= 50 - 10 + 5 \\ &= 45 \end{aligned}$$

Hence, the value of XLV in the Roman numeral system is equal to 45 in the Hindu-Arabic system

2) The angle whose magnitude is  $179^\circ$  will be a(n) \_\_\_\_ angle?

- (A) obtuse
- (B) reflex
- (C) acute
- (D) complete

Sol.(A)

The angle whose magnitude is  $179^\circ$  will be an obtuse angle as it is greater than  $90^\circ$  but less than  $180^\circ$ .

3)  $127 + (-19) + 23 + (-11) = ?$

- (A)  $-100$
- (B) 130
- (C) 120
- (D)  $-140$

Sol.(C)

$$\begin{aligned}127 + (-19) + 23 + (-11) &= 127 + 23 + (-19) + (-11) \\&= 127 + 23 + (-19 - 11) \\&= 150 + (-30) \\&= 150 - 30 \\&= 120 \\ \therefore 127 + (-19) + 23 + (-11) &= 120\end{aligned}$$

- 4) Aman bought a ball for Rs 12.50 and a marble for Rs 1.50. The total amount spent by Aman for the ball and marble was?
- (A) 14.50  
(B) 16.00  
(C) 15.00  
(D) 14.00

**SOL. (D)**

Cost of the ball = Rs 12.50

Cost of the marble = Rs 1.50

Total amount = Cost of the ball + Cost of the marble

= Rs 12.50 + Rs 1.50

= Rs 14.00

Hence, the total amount spent by Aman for ball and marble was Rs 14.00

- 5) The cost of fencing a rectangular park of length 200 m and breadth 105 m at the rate of Rs 12 per meter is?
- (A) Rs7320  
(B) Rs7444  
(C) Rs7544  
(D) Rs7644

Sol.(A)

Length of the rectangular park = 200 m

Breadth of the rectangular park = 105 m

To calculate the cost of fencing we require perimeter.

Perimeter of the rectangle =  $2 \times (\text{length} + \text{breadth})$

$$= 2 \times (200 + 105)$$

$$= 2 \times 305$$

$$= 610 \text{ m}$$

Cost of fencing 1 m of park = Rs 12

Cost of fencing 610 m of park = Rs  $(12 \times 610)$

$$= \text{Rs } 7320$$

Hence, the cost of fencing the rectangular park is Rs 7320

6) A number is said to be exactly divisible by another number if the remainder is?

- (A) 1
- (B) 0
- (C) 2
- (D) 5

Sol.(B)

A number is said to be exactly divisible by another number if the remainder is 0.

7)  $\frac{13}{5}$  can be expressed as a mixed fraction as?

- (A)  $3\frac{3}{5}$
- (B)  $3\frac{2}{5}$
- (C)  $2\frac{3}{5}$

(D)  $2\frac{5}{3}$

Sol.(C)

$$\frac{13}{5} = \frac{10+3}{5}$$

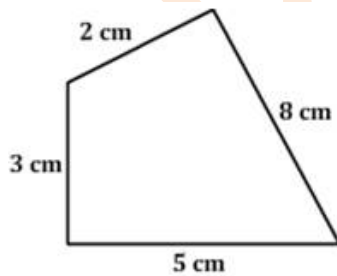
$$= \frac{10}{5} + \frac{3}{5}$$

$$= 2 + \frac{3}{5}$$

$$= 2\frac{3}{5}$$

Hence,  $\frac{13}{5}$  can be expressed as a mixed fraction as  $2\frac{3}{5}$

8) The perimeter of the figure below is?



- (A) 20 cm
- (B) 18 cm
- (C) 17 cm
- (D) 21 cm

Sol.(B)

The distance around a shape is called its perimeter.

$$\text{Perimeter} = AB + BC + CD + DA$$

$$= 2 + 8 + 5 + 3$$

$$= 18 \text{ cm}$$

Hence, the perimeter of the given figure is 18 cm.

9) The estimated difference of 43,209 and 3,479 by rounding off to the nearest hundred is?

- (A) 39700
- (B) 40000
- (C) 39000
- (D) 40500

**SOL.(A)**

43,209 is rounded off to 43,200 and 3,479 is rounded off to 3,500.

The estimated difference of 43,209 and 3,479 = 43,200 - 3,500

$$= 39,700$$

Hence, the required estimated difference is 39,700

10) A person bought 45 liters of milk in the first month, he bought 56 liters of milk in the next month, if milk costs Rs 25 per liter, then the total amount paid by him is Rs.

- (A) 2556
- (B) 2534
- (C) 2554
- (D) 2525

**Sol(D)**

Quantity of milk in the first month = 45 litres

Quantity of milk in the second month = 56 litres

Quantity of total milk = 45 + 56

$$= 101 \text{ litres}$$

Cost of the milk = Rs 25 per litre

Cost of 101 litres of milk =  $101 \times 25$

=  $(100 + 1) \times 25$

=  $100 \times 25 + 1 \times 25$  (Using distributive property of multiplication over addition)

=  $2500 + 25$

= Rs 2525

Hence, the total amount paid is Rs 2525.

**11)** \_\_\_\_ is a polygon with the least number of sides?

- (A) Triangle
- (B) Square
- (C) Hexagon
- (D) Pentagon

Sol(A)

Triangle is a polygon with the least number of sides.

**12)** The difference between two integers is 910. If one of them is 20, then the other integer is.

- (A) 840
- (B) 920
- (C) 890
- (D) 930

Sol(D)

Given, the difference between two integers = 910

One of them = 20

Let the other integer be x.

As per the problem,

$$x - 20 = 910$$

$$\Rightarrow x = 910 + 20$$

$$\Rightarrow x = 930$$

Hence, the required integer is 930

**13)** "One ten, eight units, three tenths, four hundredths, seven thousandths and eight ten-thousandths". Which of the following decimal numbers represents the above statement?

- (A) 18.3047
- (B) 18.03478
- (C) 18.3478
- (D) 18.34078

Sol.(C)

One ten, eight units, three tenths, four hundredths, seven thousandths and eight ten-thousandths

$$\begin{aligned} &= 1 \times 10 + 8 \times 1 + \frac{3}{10} + \frac{4}{100} + \frac{7}{1000} + \frac{8}{10000} \\ &= 10 + 8 + 0.3 + 0.04 + 0.007 + 0.0008 \\ &= 18 + 0.3478 \\ &= 18.3478 \end{aligned}$$

Hence, 18.3478 is the required decimal number to represent the given statement

**14)** A car travels at a speed of 'u' km/hr. It is going from Shantinagar to Shaktinagar. After the car travelled for 3 hours, Shaktinagar is still 15 km away. Therefore, the distance between Shantinagar and Shaktinagar is.

- (A)  $(3u + 15)$  km
- (B)  $3u$  Km
- (C) 15 km
- (D)  $(15u + 3)$  km

Sol.(A)

Speed of car =  $u$  km/hr

Distance travelled by the car in 3 hours =  $3 \times u$

$$= 3u \text{ km}$$

Hence, the distance between Shantinagar and Shaktinagar is  $(3u + 15)$  km

**15)** Which of the following letters does not look like the same after reflected in a mirror?

- (A) X
- (B) V
- (C) A
- (D) S

Sol.(D)

The letter S does not look like the same after reflected in a mirror.

**16)** 5 m 78 cm = \_\_\_\_ m?

- (A) 5.087
- (B) 5.078
- (C) 5.78
- (D) 5.87

Sol.(C)

$$\begin{aligned} 5 \text{ m } 78 \text{ cm} &= 5\text{m} + \frac{78}{100} \text{ cm} \quad [\because 1 \text{ cm} = \frac{1}{100} \text{ m}] \\ &= 5\text{m} + 0.78 \text{ m} \\ &= 5.78 \text{ m} \end{aligned}$$

$$\therefore 5\text{m } 78\text{cm} = 5.78\text{m}$$

**17)** n is multiplied by 8 and the result is subtracted from 15, this is represented as?

- (A)  $15n - 8$
- (B)  $15 - 8n$
- (C)  $8n - 15$
- (D)  $15 + 8n$

Sol(B)

n is multiplied by 8 and the result is subtracted from 15 is represented as  $15 - 8n$



18) Which of the following pairs of primes is not a pair of twin primes?

- (A) 3, 5
- (B) 5, 7
- (C) 7, 11
- (D) 11, 13

Sol.(C)

We know that, two prime numbers whose difference is 2 are called twin primes.

But,  $11 - 7 = 4$

Hence, 7 and 11 are not twin primes.

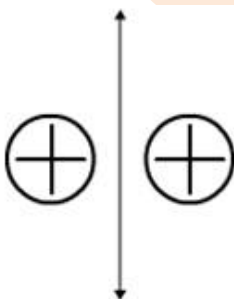
[In the other pairs, the difference between the given primes is 2.]

19) The mirror image of the figure below looks \_?



- (A) bigger than the original
- (B) smaller than the original
- (C) as if its direction is changed
- (D) same

Sol.(D)

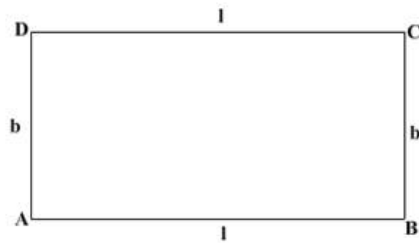


The mirror image of the given figure looks the same

20) If the length of a rectangle is  $l$  and its breadth is  $b$ , then its perimeter is?

- (A)  $l + b$
- (B)  $l + 2b$
- (C)  $2l + b$
- (D)  $2l + 2b$

Sol.(D)



$$\begin{aligned} \text{Perimeter of rectangle ABCD} &= AB + BC + CD + DA \\ &= l + b + l + b \\ &= 2l + 2b \end{aligned}$$

Hence, the perimeter of the given rectangle is  $2l + 2b$

- 21)** A number with four or more digits is divisible by \_\_\_\_\_, if the number formed by the last three digits of the number is divisible by 8?
- (A) 3
  - (B) 5
  - (C) 6
  - (D) 8

Sol.(D)

A number with four or more digits is divisible by 8, if the number formed by the last three digits of the number is divisible by 8.

- 22)** If the number 56\_795 is divisible by 3, then the digit in the blank among the following is.
- (A) 5
  - (B) 0
  - (C) 1
  - (D) 6

Sol.(C)

$5 + 6 + 5 + 7 + 9 + 5 = 37$  is not a multiple of 3

Thus, 565795 is not divisible by 3.

$5 + 6 + 0 + 7 + 9 + 5 = 32$  is not a multiple of 3

Thus, 560795 is not divisible by 3.

$5 + 6 + 1 + 7 + 9 + 5 = 33$  is a multiple of 3

Thus, 561795 is divisible by 3.

$5 + 6 + 6 + 7 + 9 + 5 = 38$  is not a multiple of 3

Thus, 566795 is not divisible by 3.

Hence, the digit in the blank is 1

**23)** How many arcs are to be drawn to construct an angle of  $90^\circ$ ?

- (A) 5
- (B) 7
- (C) 3
- (D) 1

Sol.(A)

5 arcs are to be drawn to construct an angle of  $90^\circ$

**24)** The weight of 72 books is 9 kg. How many such books weight 6 kg?

- (A) 28
- (B) 38
- (C) 48
- (D) 58

Sol. (C)

The number of books in 9kg weight= 72

$\therefore$  the number of books in 1 kg weight =  $\frac{72}{9} = 8$

Hence, the number of books in 6 kg weight =  $8 \times 6 = 48$

Thus, the number of books in 6 kg weight is 48

**25)** While playing a game Anita lost Rs 80 in the first game, Rs 40 in the second game and Rs 25 in the third game. Also, she gained Rs 50 in the fourth game and Rs 70 in the fifth game. Her net loss or gain was?

- (A) Rs45
- (B) Rs35
- (C) Rs25
- (D) Rs20

Sol.(C)

Let us denote the amount gained by positive sign and amount lost by negative sign.

Given,

Amount lost in the first game = (-80)

Amount lost in the second game = (-40)

Amount lost in the third game = (-25)

Amount gained in the fourth game = (+50)

Amount gained in the fifth game = (+70)

Total amount = (-80) + (-40) + (-25) + (50) + (70)

= -25

(i.e.) loss Rs 25

Hence, Anita lost Rs 25 in the game.

**26)** In a test, Madhu gets 15 marks out of 20, Rahul gets 80 out of 100, Reena gets 30 out of 50 and Mohan gets 4 out of 10. The best student among four is?

- (A) Madhu
- (B) Rahul
- (C) Mohan
- (D) Reena

Sol.(B)

$$\text{Ratio of marks obtained by Madhu} = \frac{15}{20} = \frac{3}{4}$$

$$\text{Ratio of marks obtained by Rahul} = \frac{80}{100} = \frac{4}{5}$$

$$\text{Ratio of marks obtained by Reena} = \frac{30}{50} = \frac{3}{5}$$

$$\text{Ratio of marks obtained by Mohan} = \frac{4}{10} = \frac{2}{5}$$

Now, we have to find, out of  $\frac{3}{4}$ ,  $\frac{4}{5}$ ,  $\frac{3}{5}$ , and  $\frac{2}{5}$ , which is greater

L.C.M of 4 and 5 = 20

$$\frac{3}{4} = \frac{3 \times 5}{4 \times 5} = \frac{15}{20}$$

$$\frac{4}{5} = \frac{4 \times 4}{5 \times 4} = \frac{16}{20}$$

$$\frac{3}{5} = \frac{3 \times 4}{5 \times 4} = \frac{12}{20}$$

$$\frac{2}{5} = \frac{2 \times 4}{5 \times 4} = \frac{8}{20}$$

$$\frac{16}{20} > \frac{15}{20} > \frac{12}{20} > \frac{8}{20} \text{ i.e., } \frac{4}{5} > \frac{3}{4} > \frac{3}{5} > \frac{2}{5}$$

Hence, Rahul is the best student among the four

**27)** The length of the radius of a circle is 5 cm. If the radius is made three times, then what will be the diameter of the newly formed circle?

- (A) 30 cm
- (B) 45 cm
- (C) 15 cm
- (D) 25 cm

Sol(

Radius of the new circle = 3 × Radius of original circle

Radius of the new circle = 3 × 5 = 15 cm

It is known that diameter of a circle is twice its radius.

Thus, diameter of the newly formed circle = 2 × 15 = 30cm

28) The temperature of a city was found to be  $5^{\circ}\text{C}$  on a particular day. Next day, the temperature of the city was found to be  $-7^{\circ}\text{C}$ . What is the change in the temperature of the city over the two days?

- (A) Decrease by  $5^{\circ}\text{C}$
- (B) Increase by  $12^{\circ}\text{C}$
- (C) Decrease by  $12^{\circ}\text{C}$
- (D) Increase by  $5^{\circ}\text{C}$

Sol. (

Temperature of the city on the first day =  $5^{\circ}\text{C}$

Temperature of the city on the first day =  $-7^{\circ}\text{C}$

It can be observed that temperature of the city decreases over the two days.

$$\begin{aligned}\therefore \text{Decrease in temperature} &= 5^{\circ}\text{C} - (-7^{\circ}\text{C}) \\ &= 5^{\circ}\text{C} + 7^{\circ}\text{C} = 12^{\circ}\text{C}\end{aligned}$$

Thus, the temperature of the city decreases by  $12^{\circ}\text{C}$  over the two days

29) If the length of diagonal of a square is 50 cm, then its perimeter is?

- (A) 100 cm
- (B)  $100\sqrt{2}$  cm
- (C)  $25\sqrt{2}$  cm
- (D) 25 cm

Sol.(B)

Length of the diagonal = 50 cm

$$\begin{aligned}\text{Length of the side of square} &= \frac{\text{length of diagonal}}{\sqrt{2}} = \frac{50}{\sqrt{2}} = \frac{25 \times 2}{\sqrt{2}} \\ &= \frac{\sqrt{2} \times \sqrt{2} \times 25}{\sqrt{2}} = 25\sqrt{2}\end{aligned}$$

Therefore, perimeter of the square =  $4 \times \text{side} = 4 \times 25\sqrt{2} = 100\sqrt{2}$  cm

30) An airplane flies 3300 km in 3 hours. How far does it travel in 5 hours?

- (A) 5000
- (B) 3350
- (C) 5500
- (D) 4500

Sol(C)

We have,

Distance travelled in 3 hours = 3300 km

$$\therefore \text{Distance travelled in 1 hours} = \frac{3300}{3} \text{ km} = 1100 \text{ km}$$

Hence, the distance travelled in 5 hours =  $(1100 \times 5) \text{ km} = 5500 \text{ km}$