INDIAN SCHOOL AL WADI AL KABIR

Mid-Term Examination (2022-23)

Class: VII   Sub: MATHEMATICS   Max Marks: 80

Date: 27/09/2022   Set - I   Time: $2\frac{1}{2}$ hours

Instructions:

Section A: Multiple Choice Question (Q.1 to Q.5) & Source based Question (Q.6)

Section B: Short Answer Questions of 2 marks each (Q.7 to Q.15)

Section C: Long Answer Questions (Type – 1) of 3 marks each (Q.16 to Q.23)

Section D: Long Answer Questions (Type – 2) (Q.24 to Q.28)

       & Case study Question (Q.29 & Q.30) of 4 marks each

Section A: Multiple Choice Question (Q.1 to Q.5) of **1** mark each

1. Write equation for the following statement:

"Six more than seven times a number is thirty-four"

A   y + 6 = 34   **B**   7y + 6 = 34   **C**   6y + 7 = 34   **D**   y − 7 = 34

2. Find the range of the weights (in kg) of the students of a class given below:
48, 60, 47, 50, 47, 57, 58, 45, 53.

A   50   **B**   13   **C**   15   **D**   47

3. Find the pair of integers whose sum is (−5).

A   (−1, 6)   **B**   (5, 0)   **C**   (1, −4)   **D**   (−3, −2)

4. By using decimals express 1125 paise as rupees.
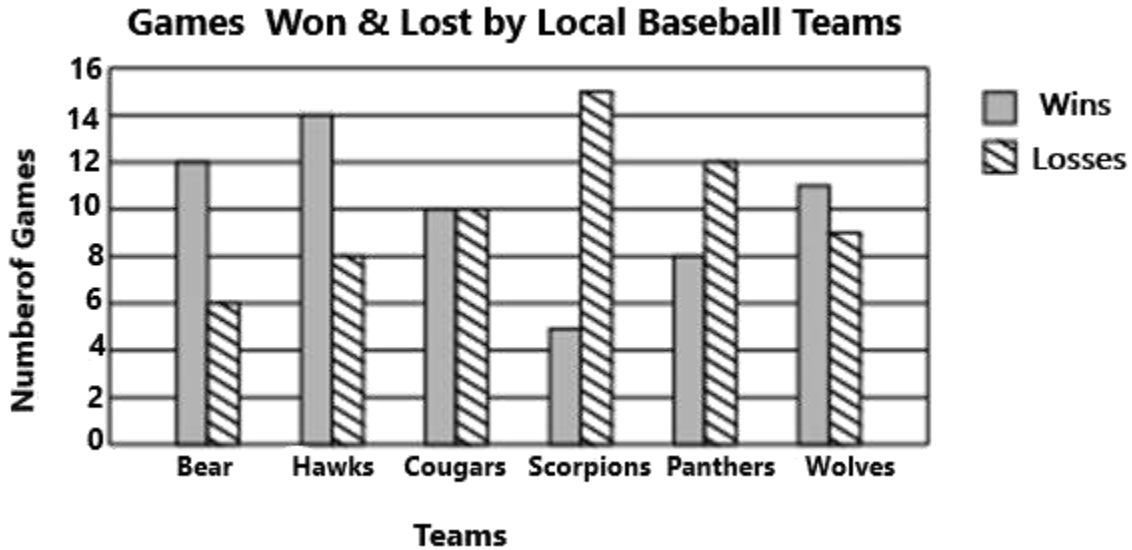
A   ₹ 1.125   **B**   ₹ 11.25   **C**   ₹ 110.25   **D**   ₹ 112.50

5. If two angles are complementary angles and one of the angles is of 52° then find the measure of another angle.

A   38°   **B**   100°   **C**   68°   **D**   128°

Source based Question (Q.6)-5 Marks

Q6. Given below is a double bar graph which shows the number of games won and lost by six local baseball teams. Observe the graph and answer the questions that follows.

I How many games won by team Bear?

A 11 **B** 10 **C** 6 **D** 12

II Which team won and lost the same number of games.

A Hawks **B** Panthers **C** Cougars **D** Bear

III How many more games did the Hawks win than the Panthers?

A 4 **B** 6 **C** 2 **D** 1

IV For the Panthers, what is the ratio of number of games won to number of games lost?

A 2:3 **B** 2:1 **C** 3:4 **D** 3:2
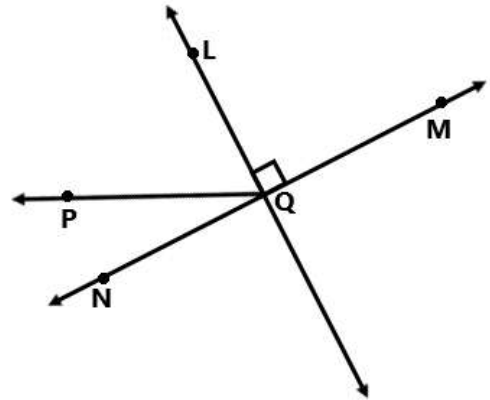
V Which team won least number of games?

A Hawks **B** Scorpions **C** Bear **D** Wolves

Section B: Short Answer Questions (Type – 1) of **2** marks each (Q.7 to Q.15)

7. Find the product: $(-20) \times (-4) \times 15$

8. From the given figure write the names of the following angles:

    a) A linear pair
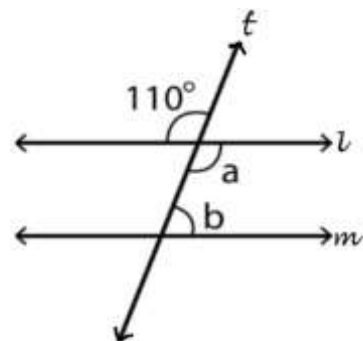
    b) A pair of complementary angles.

9. Find $\dfrac{3}{4}$ of 24 Liters

10. Use the sign of >, < or = in the box to make the statements true.

$$-7 + 15 \boxed{} -7 - 15$$

11. Solve the equation: $3x + 2 = 17$

12. Lines $l \parallel m$, and t is a transversal. Find the angles a and b.

13. Check whether the value given in the brackets is a solution of the given equation or not? (Show working)

$5x - 2 = 14;\ (x = 2)$

14. Find the median of the following data: 61, 43, 127, 99, 41, 92, 71, 58, 57.

15. Find the value of the following:

    A) 0.0805×100
    B) $64.32 \div 10$

    Section C: Long Answer Questions (Type – 1) of **3** marks each (Q.16 to Q.23)

16. Find the solution of the equation: $4(p - 3) = 16$

17. Manu recorded the temperatures (in °C) of different cities as follows:

29, 30, 25, 27, 40, 39, 42, 19, 28. Find the mean of the data.

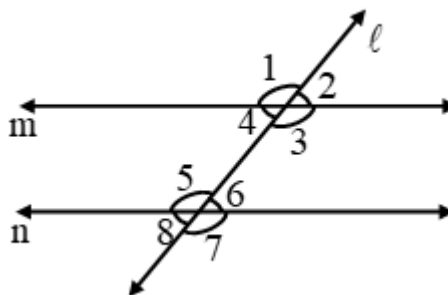**18.** Find the value of the following using suitable property.

$(-192) \times 143 + (-192) \times 57$

19. Divide: $7\dfrac{1}{2} \div \dfrac{3}{4}$

20. A plane is flying at the height of 3500 m above the sea level. At a particular point, it is exactly above a submarine floating 1000 m below the sea level. What is the vertical distance between them?

21. In the adjoining figure, $m \parallel n$ and ℓ is the transversal. Identify

    (i)   a pair of corresponding angles.
    (ii)   a pair of alternate interior angles.
    (iii) a pair of interior angles on the same side of the transversal.

22. A glass jar contains 5 red, 7 green, 9 blue and 11 yellow marbles. If a single marble is picked at random from the jar, what is the probability of
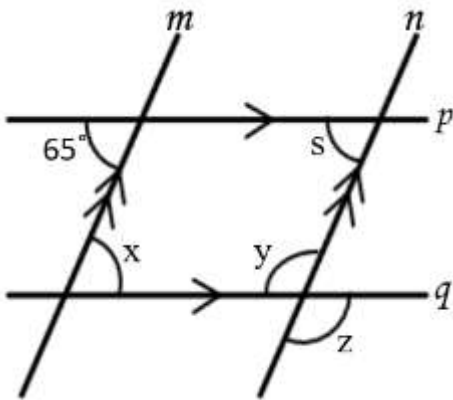   a) Getting a blue marble
    b) Getting a red marble
    c) Getting a yellow marble

23 Alka walks $3\frac{1}{4}$ km in one hour. How far does she go in 7 hours?

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Section D: Long Answer Questions (Type – 2) (Q.24 to Q.28)

& Case study (Q.29 &30) of **4** marks each

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24. In a class test containing 11 questions, 5 marks are awarded for every correct answer and (−2) marks are awarded for every incorrect answer.

    i)   Tina got 8 correct answers and 3 incorrect answers. What is her total score?
    ii)   Reena got 4 correct answers and 6 incorrect answers. What is her total score?

25. Find missing angles x, y, z and s from the given figure; if the lines $m \parallel n$ and $p \parallel q$.

26. A car covers a distance of 183.9 km in 3 hours.

a) Find the distance covered by the car in one hour?

b) Find the distance covered by the car in 2.5 hours?

27. Anil's mother is 60 years old. She is 8 years older than twice Anil's age. What is Anil's age?

28. The following table shows the number of girls and boys of a class who take part in different sports activities. Draw a double bar graph to represent the data.

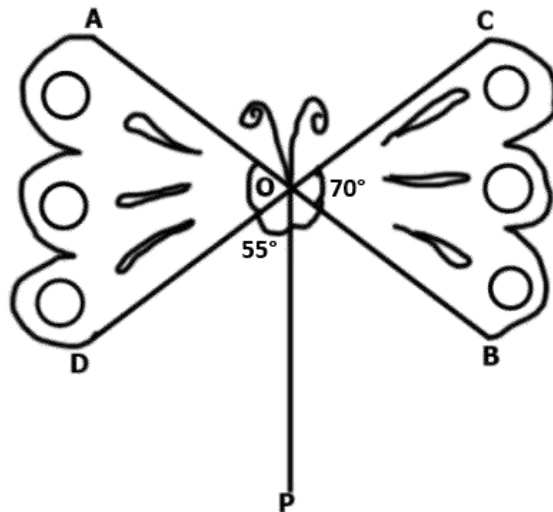| Sports	Hockey	Badminton	Football	Cricket
Boys	30	50	80	70
Girls	20	60	40	30

29. Case Study-1

Veena, Sania and Kaniha are friends. They share their toys with each other while playing. Veena has some marbles. Sania has 10 more marbles than Veena has. Kaniha has 3 less than two times the marbles which Veena has. Based on this information answer the following questions:

I.	If Veena has 'x' marbles, write the expression for the number of marbles Sania has.							
	A	$10-x$	**B**	$10x$	**C**	$x+10$	**D**	$\dfrac{x}{10}$
II.	Write the expression for the number of marbles Kaniha has.							
	A	$\dfrac{2}{3}x$	**B**	$2x-3$	**C**	$3x+2$	**D**	$6x$
III.	After sometime Karan joined with them for playing. He says that he has 6 marbles more than five times the number of marbles Veena has. If Karan has 36 marbles and Veena has x number of marbles, write the equation to represent the statement.							
	A	$5x=36$	**B**	$6x-5=36$	**C**	$6x+5=36$	**D**	$5x+6=36$
IV.	After finished playing they wanted to eat some candies. Kaniha said that there are $(3y+5)$ candies on the table. If $y=4$, then what is the number of candies on the table.							
	A	20	**B**	17	**C**	12	**D**	7

30. Case Study-2

Miya was making a toy butterfly with sticks for her younger sister. She arranged the sticks as shown in figure. AB and CD are two sticks intersecting at O and a third stick OP is also joined to hold the toy butterfly. From the figure $\angle BOC = 70°$ and $\angle DOP = 55°$. Based on the above information answer the following questions:

I	What is the value of $\angle AOD$.							
	A	110°	**B**	55°	**C**	70°	**D**	30°
II	The angles $\angle AOC$ and $\angle BOD$ are _____							
	A	Linear pair	**B**	Complementary angles	**C**	Supplementary angles	**D**	Vertically opposite angles
III	Which of the following is adjacent supplementary angles?							
	A	$\angle AOC\&\angle COB$	**B**	$\angle POB\&\angle BOC$	**C**	$\angle AOD\&\angle BOC$	**D**	$\angle DOP\&\angle POB$
IV	What is the value of $\angle POB$?							
	A	90°	**B**	70°	**C**	55°	**D**	85°