



**INDIAN SCHOOL MUSCAT
MIDDLE SECTION
ANNUAL EXAMINATION 2018-19**



CLASS: VI

SUBJECT – MATHEMATICS - ANSWER KEY

SECTION A

1(a)	What is the place value of 8 in 123.758? Ans: $\frac{8}{1000} = 0.00$	
1(b)	Write all the integers between – 3 and 2. Ans: – 2, – 1, 0, 1	
1(c)	Find the solution of the equation $x - 4 = 6$ Ans: $x = 6 + 4 = 10$	
1(d)	Find the side of the square whose perimeter is 48 cm. Ans : Side = Perimeter of a square $\div 4$ $= 48 \div 4 = 12$ cm	
1(e)	Write the ratio of 4 m to 45 cm in the simplest form. Ans: 4 m = 4 x 100 cm = 400 cm 400 cm : 45 cm $\frac{400}{45} = \frac{80}{9}$	
1(f)	Identify the property $32 \times 45 = 45 \times 32$ Ans: Commutative property of multiplication	

SECTION B

2	Simplify the fraction $\frac{75}{120}$ HCF = 15 $\frac{75}{120} \div \frac{15}{15} = \frac{5}{8}$	
3	Add the following using number line : $3 + (-8)$ Number line (1 mark) $3 - 8 = -5$ (1 mark)	
4.	Find the cost of tiling a rectangular plot of land of length 15 m and breadth 4 m at the rate of ₹ 25 per sq. m? Area of the rectangular plot of land = length x breadth $= 15 \text{ m} \times 4 \text{ m} = 60 \text{ sq. m}$ Cost of tiling the land at rupees 25 per metre = $25 \times 60 = ₹ 1500$	
5.	Draw $\angle XYZ = 80^\circ$ using protractor and construct its bisector using ruler and compass. Drawing $\angle XYZ = 80^\circ$ and naming Bisecting the angle	
6.	Determine if 32, 48, 140, 210 are in proportion. Product of the Extremes = $32 \times 210 = 6720$ Product of the means = $48 \times 140 = 6720$ $6720 = 6720$ Product of Extremes = Product of Means Thus, 32, 48, 140, 210 are in proportion	

7. The number of pencils with students in a class of 20 are as follows
1, 2, 3, 1, 2, 2, 3, 4, 1, 2, 1, 1, 2, 3, 3, 3, 1, 2, 1, 1
Make a frequency distribution table using tally marks.

Observations	Tally marks	Frequency
1	III	8
2	I	6
3		5
4	I	1
	Total	20

SECTION C

8. Simplify: $1\frac{9}{20} + 2\frac{7}{10} - 1\frac{1}{15}$
Converting the fraction into improper fraction

$$\frac{29}{20} + \frac{27}{10} - \frac{16}{15}$$

LCM = 60

$$\frac{29}{20} \times \frac{3}{3} + \frac{27}{10} \times \frac{6}{6} - \frac{16}{15} \times \frac{4}{4}$$

$$\frac{87}{60} + \frac{162}{60} - \frac{64}{60}$$

$$\frac{185}{60} = 3\frac{1}{12}$$

9. Subtract 526 g from 8 kg 70 g
526 g = 0.526 kg
8 kg 70 g = 8.070 kg

$$\begin{array}{r} 8.070 \\ - 0.526 \\ \hline 7.544 \text{ kg} \end{array}$$

7 kg 544 g

10. Sam read 30 pages of a book containing 120 pages. Tony read $\frac{5}{6}$ of the same book. Who read more and by what fraction?

$$\text{Sam read} = \frac{30}{120} = \frac{1}{4} \text{ of a book}$$

$$\text{Tony read} = \frac{5}{6} \text{ of a book}$$

$$\text{Compare } \frac{1}{4} \text{ and } \frac{5}{6}$$

$$\frac{1}{4} \times \frac{3}{3} = \frac{3}{12}$$

$$\frac{5}{6} \times \frac{2}{2} = \frac{10}{12}$$

$$\frac{3}{12} < \frac{10}{12}$$

$$\text{Difference} = \frac{10}{12} - \frac{3}{12} = \frac{7}{12}$$

Ans: Tony read $\frac{7}{12}$ pages more than Sam

11. Pick out the solution from the values given in the bracket next to the equation. Show that the other values do not satisfy the equation.

$$2x - 3 = 7 \quad (2, 3, 5)$$

Equation	Value of variable x	LHS	Equation Satisfied(Yes/No)
$2x - 3 = 7$	2	$2 \times 2 - 3 = 1$	LHS \neq RHS No
$2x - 3 = 7$	3	$2 \times 3 - 3 = 3$	LHS \neq RHS No
$2x - 3 = 7$	5	$2 \times 5 - 3 = 7$	LHS = RHS Yes

Thus, $x = 5$ the solution of the equation

12. Simplify: $(-27) + 64 + 32 + (-17)$
 $= -27 + 64 + 32 - 17$
 $= -27 - 17 + 64 + 32$
 $= -44 + 95$
 $= 52$

13. How many square tiles of side 5 cm are required to cover a rectangular region measuring 55 cm and 25 cm?

Area of the square tiles = $5 \times 5 = 25$ sq.cm

Area of the rectangle region = $55 \times 25 = 1375$ sq.cm

Number of tiles needed = $1375 \div 25 = 55$ tiles

14. Construct an angle of measure 120° using ruler and compass.
















15. Divide ₹ 2800 between Anil and Sunil in the ratio 3:4.










Sum of two parts = $3 + 4 = 7$

Anil's share = $\frac{3}{7}$ of 2800 = $\frac{3}{7} \times 2800 = ₹ 1200$

Sunil's share = $\frac{4}{7}$ of 2800 = $\frac{4}{7} \times 2800 = ₹ 1600$

16. The following pictograph shows the number of computers sold by a dealer in five months of a particular year

Months	Number of computers  = 5 computers
January	    
February	     
March	  

	<div> <div>April</div> <div>     </div> </div> <div> <div>May</div> <div>      </div> </div>	
	<p>Answer the following questions:</p> <p>a) Which month shows the maximum sales of computers? How many? Ans: Maximum number of computers were sold in the month of February, 30 computers were sold</p> <p>b) How many computers were sold in March? Ans: 15 computers were sold in the month of March</p> <p>c) What is the total number of computers sold in the five months? Ans: 115 computers were sold in five months</p>	
17.	<p>Four friends went for a picnic. Each one brought a pizza for ₹ 50 and a soft drink for ₹ 30. How much did they spend in all?</p> <p>Amount spent for pizza = ₹(4 x 50) Amount spent for soft drinks = ₹(4 x 30) Using distributive property Total Amount spent = $4 \times 50 + 4 \times 30$ $= 4 \times (50 + 30)$ $= 4 \times 80 = ₹ 320$ Total amount spent by the four friends = ₹ 320</p>	
SECTION D		
18.	<p>Kareena covered a distance of 15 km 612 m. She travelled 7 km 80 m by bus and rest by car. How much distance did she travel by car?</p> <p>Total distance travelled = 15 km 612 m = 15.612 km Distance travelled by bus = 7 km 80 m = 7.080 km Distance travelled by car = Total distance – Distance travelled by bus $= 15.612 - 7.080$ $\begin{array}{r} 15.612 \\ - 7.080 \\ \hline 8.532 \end{array}$ km</p> <p>Ans: Kareena travelled 8 km 532 m by car</p>	
19.	<p>a) Arrange the integers – 6, 0, – 7, 3, – 10, 4 in ascending order. Ans: – 10, – 7, – 6, 0, 3, 4</p> <p>b) Find the sum of – 350, 50 and – 450 $(-350) + 50 + (-450)$ $= -350 - 450 + 50$ $= -800 + 50 = -750$</p> <p>c) Subtract – 456 from 56 $56 - (-456)$ $= 56 + 456 = 512$</p>	
20.	<p>The present age of Sunita is y years.</p> <p>a) What was her age 4 years ago? Ans : Sunita's age 4 years ago = (y – 4) years</p> <p>b) Suniha's brother is 2 years elder to him. What is his age?</p>	

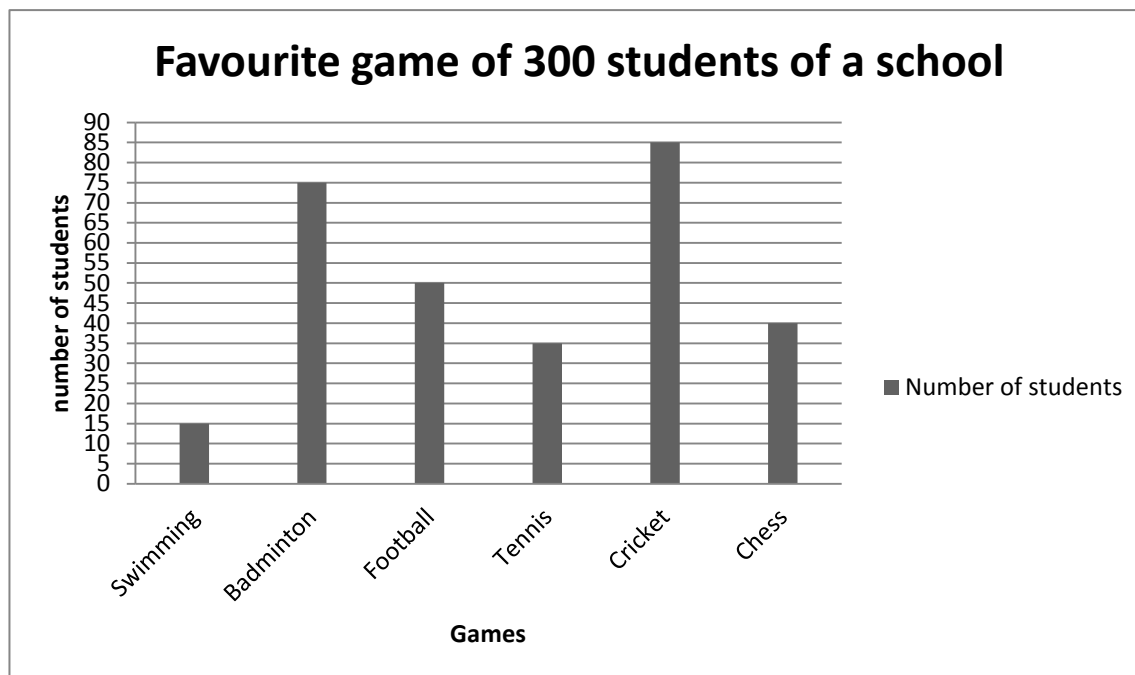
	<p>Ans: Sunita's brother's age = (y + 2) years</p> <p>c) Sunita's father is 7 years more than three times Sunitha's age. What is her father's age?</p> <p>Ans: Sunita's father's age = (3y + 7) years</p> <p>d) Sunita's grandfather is six times Sunita's age. What is her grandfather's age?</p> <p>Ans: Sunita's grandfather's age = 6y</p>	
21.	<p>Piyush runs around a square park of side 85 m. Riya runs around a rectangular park of length 60 m and breadth 45 m. Who covers more distance and by how much?</p> <p>Distance covered by Piyush = Perimeter of the square park $= 4 \times \text{length of the side} = 4 \times 85 = 340 \text{ m}$</p> <p>Distance covered by Riya = Perimeter of the rectangular park $= 2 \times (\text{length} + \text{breadth}) = 2 \times (60 + 45) = 2 \times 105 = 210 \text{ m}$</p> <p>Compare $340 > 210$ Difference = $340 - 210 = 130 \text{ m}$</p> <p>Ans: Piyush ran 130 m more than Riya</p>	
22.	<p>Construct a line segment AB of length 5.6 cm and DC length 3.4 cm. Using compass, Construct another line segment PQ such that $PQ = 2AB - DC$</p> <p>Construction of line segment AB and DC</p> <p>Construction of line segment PQ</p>	
23.	<p>A car travels 180 km in 4 hours.</p> <p>Ans: Distance travelled in one hour = $180 \div 4 = 45 \text{ km}$</p> <p>a) How far will it travel in 7 hours?</p> <p>Ans: Distance travelled in 7 hour = $7 \times 45 = 315 \text{ km}$</p> <p>b) How long will it take to travel 450 km at this speed?</p> <p>Number of hours taken to travel one kilometer = $\frac{4}{180} = \frac{1}{45}$</p> <p>Number of hours taken to travel 450 km = $450 \times \frac{1}{45} = 10 \text{ hours}$</p>	

24. The following table shows the favourite game of 300 students of a school.

Game	Swimming	Badminton	Football	Tennis	Cricket	Chess
Number of students	15	75	50	35	85	40

Draw a bar graph to illustrate the above data.

Scale 1 Unit length = 5 students



25. Find the value of the following by suitable rearrangement:

a) $25 \times 316 \times 400 = (25 \times 400) \times 316 = 10000 \times 316 = 3160000$

b) $1962 + 353 + 538 + 647 = 1962 + 538 + 353 + 647 = 2500 + 1000 = 3500$