



# INDIAN SCHOOL AL WADI AL KABIR (2023-24)

**Class VIII**, Mathematics

## Worksheet- MENSURATION

### Multiple Choice Questions (1 Mark)

<b>Q.1</b>	The area of a trapezium is $1080 \text{ cm}^2$ . If the lengths of its parallel sides are $55.6 \text{ cm}$ and $34.4 \text{ cm}$ . Find the distance between them.							
<b>A</b>	20cm	<b>B</b>	18cm	<b>C</b>	30cm	<b>D</b>	24cm	
<b>Q.2</b>	If the lateral area of a cube is $144 \text{ square centimetres}$ , can you find the length of its side?							
<b>A</b>	6cm	<b>B</b>	9cm	<b>C</b>	4cm	<b>D</b>	14cm	
<b>Q.3</b>	A matchbox measures $4\text{cm} \times 2.5\text{cm} \times 1.5\text{cm}$ . What will be the volume of a packet containing 12 such boxes?							
<b>A</b>	$180\text{m}^3$	<b>B</b>	$170\text{cm}^3$	<b>C</b>	$540\text{Cm}^3$	<b>D</b>	$180\text{cm}^3$	
<b>Q.4</b>	A vessel in the form of a right circular cylinder is half full of paint. Its base radius is $6\text{cm}$ and its height is $80\text{cm}$ . Find the volume of paint in a vessel.							
<b>A</b>	$5760\pi\text{cm}^3$	<b>B</b>	$1290\pi\text{cm}^3$	<b>C</b>	$1440\pi\text{cm}^3$	<b>D</b>	$1152\pi\text{cm}^3$	
<b>Q.5</b>	Water is poured into a cuboidal reservoir at the rate of $120 \text{ litres per minute}$ . If the volume of the reservoir is $216\text{m}^3$ , find the number of hours it will take to fill the reservoir.							
<b>A</b>	50 hours	<b>B</b>	30 hours	<b>C</b>	60 hours	<b>D</b>	70 hours	
<b>Q.6</b>	A rectangular Aluminum sheet of dimensions $44\text{cm} \times 14\text{cm}$ is folded without overlapping to make a cylinder of height $14\text{cm}$ . Find the diameter of the cylinder so formed.							
<b>A</b>	14 cm	<b>B</b>	24 cm	<b>C</b>	18 cm	<b>D</b>	7 cm	
<b>Q.7</b>	Find the area of the given quadrilateral.							
<b>A</b>	$26\text{cm}^2$	<b>B</b>	$27\text{cm}^2$	<b>C</b>	$29\text{cm}^2$	<b>D</b>	$25\text{cm}^2$	
<b>Q.8</b>	The dimensions of a godown are $40\text{m}$ , $25\text{m}$ , and $10\text{m}$ . If it is filled with cuboidal boxes each of dimensions $2\text{m} \times 2\text{m} \times 1\text{m}$ , calculate the number of boxes filled in the godown.							
<b>A</b>	2,500	<b>B</b>	2,000	<b>C</b>	4,000	<b>D</b>	8,000	

<b>Q.9</b>	The area of a rhombus and that of a square are equal. The side of the square is 6 cm. If one of the diagonals of the rhombus is 4cm. Then find the length of its other diagonal.							
	<b>A</b>	8cm	<b>B</b>	24cm	<b>C</b>	48cm	<b>D</b>	18cm
<b>Q.10</b>	What will be the change in the volume of a cube when its side becomes 10 times the original side?							
	<b>A</b>	Volume becomes 1000 times	<b>B</b>	Volume becomes 10 times	<b>C</b>	Volume becomes 100 times	<b>D</b>	Volume becomes 1/1000 times
<b>Source-based question:</b>								
A farmer has a field that is shown in the figure. The length of the side $CD = 24$ m, $AD = 15$ m, $BC = 13$ m. $AE = EF = 12$ m, both are perpendicular to side $DC$ .								
<b>Based on the above information answer the following questions.</b>								
<b>Q.11</b>	What shape does the park ABCD resemble?							
	<b>A</b>	Square	<b>B</b>	Rectangle	<b>C</b>	Rhombus	<b>D</b>	Trapezium
<b>Q.12</b>	If he brought 61 meters of wire to fence the boundary of field ABCD, what is the length of side AB?							
	<b>A</b>	9m	<b>B</b>	10m	<b>C</b>	20m	<b>D</b>	15m
<b>Q.13</b>	Find the area of the park ABCD.							
	<b>A</b>	190m <sup>2</sup>	<b>B</b>	204m <sup>2</sup>	<b>C</b>	198m <sup>2</sup>	<b>D</b>	28m <sup>2</sup>
<b>Q.14</b>	If he wants to buy a rhombus-shaped plot with diagonals of 16m and 35m, what is the plot's area?							
	<b>A</b>	720m <sup>2</sup>	<b>B</b>	280m <sup>2</sup>	<b>C</b>	240m <sup>2</sup>	<b>D</b>	360m <sup>2</sup>
<b>Q.15</b>	Find the total cost of spraying the insecticides at the rate of ₹50 per m <sup>2</sup> in the new plot.							
	<b>A</b>	₹14,000	<b>B</b>	₹17,000	<b>C</b>	₹18,720	<b>D</b>	₹12,000

**Case study:** The ground man (worker) used a cylindrical roller to level the school playground completely for sports day matches. If the diameter of the roller is 2m and the length of the roller is 7m (use  $\pi = \frac{22}{7}$ ).



**Based on the above information answer the following questions.**

<b>Q.16</b>	Find the curved surface area of the roller.
<b>Q.17</b>	If it takes 500 revolutions to level the playground, find the area of the ground.
<b>Q.18</b>	If a school plans to construct a new swimming pool that is 8m long, 6m wide, and 3m deep, what is the volume of mud that needs to be removed to build the pool?
<b>Q.19</b>	Find the cost of digging a cuboidal pool at ₹ 80 per m <sup>3</sup> .
<b>Q.20</b>	The capacity of the overhead cuboidal tank in the school is 50,000 litres of water. Find the breadth of the tank, if its height and length are 10m and 2.5m respectively.

<b>Answers</b>	<b>1</b>	D	<b>2</b>	A	<b>3.</b>	D	<b>4</b>	C
	<b>5</b>	B	<b>6</b>	A	<b>7</b>	B	<b>8</b>	A
	<b>9</b>	D	<b>10</b>	A	<b>11</b>	D	<b>12</b>	A
	<b>13</b>	C	<b>14</b>	B	<b>15</b>	A	<b>16</b>	44m <sup>2</sup>
	<b>17</b>	22,000m <sup>2</sup>	<b>18</b>	144m <sup>3</sup>	<b>19</b>	₹ 11,520	<b>20</b>	2m

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