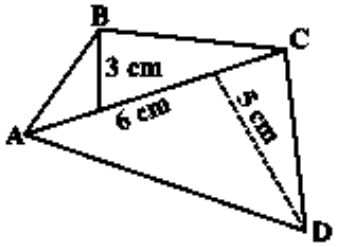
INDIAN SCHOOL AL WADI AL KABIR

Class VIII, Mathematics ***Worksheet 2 - Mensuration***

24-01-2021

OBJECTIVE TYPE (1 Mark)

Q.1.	Surface area of a cube is 294 m^2. The length of its edge is							
	A	25 m	**B**	10 m	**C**	7 m	**D**	5 m
Q.2.	The area of a trapezium of height 6cm is 18 cm^2. If one of the parallel sides is 4 cm, the other side will be							
	A	8 cm	**B**	2 cm	**C**	3 cm	**D**	4 cm
Q.3.	The area of the rhombus whose diagonals are 82cm and 116cm long is							
	A	4756 cm^2	**B**	3756 cm^2	**C**	9512 cm^2	**D**	8512 cm^2
Q.4.	If the base area of a cuboid is 268m^2 and height is 4.5m then its volume is							
	A	7156 m^3	**B**	1206m^3	**C**	1156 m^3	**D**	1006 m^3
Q.5.	If the diameter of the base of a closed right circular cylinder be equal to its height h, then its surface area is							
	A	$3\pi h^2$	**B**	$6\pi h^2$	**C**	$3\pi r^2$	**D**	$6\pi r^2$
Q.6.	The sum of the lengths of the bases of a trapezium whose altitude is 24 m and whose area 144 m^2 is							
	A	42 m	**B**	22 m	**C**	12 m	**D**	26 m
Q.7.	The diagonal of a quadrilateral shape field is 30m and the perpendiculars dropped on it from the remaining opposite vertices are 9 m and 10 m, then the area of the field is							
	A	232 m^2	**B**	192 m^2	**C**	152 m^2	**D**	285 m^2
Q.8.	The curved surface of a cylindrical pillar is 264 m^2 and its volume is 792 m^3. The diameter of the pillar is							
	A	12 m	**B**	5 m	**C**	15 m	**D**	7 m
Q.9.	If the capacity of a cylindrical tank is 3080 m^3 and the diameter of its base is 14 m, then the depth of the tank is							
	A	16 m	**B**	20 m	**C**	26 m	**D**	14 m

Q.10.	How many 4 metre cubes can be cut from a cuboid measuring 32 m x 24 m x 8 m?							
	A	60	B	75	C	96	D	94
Fill in the blanks(1mark)								
Q.11.	The volume of a cube whose area of a face is 81 cm^2 _____.							
Q.12.	The area of a rhombus is 90 cm^2 with one diagonal 15 cm then the other diagonal is _____.							
Q.13.	The area of the quadrilateral is_____.  							
Q.14.	The T.S.A. of cylinder with radius 7 m and height 20 m is ___							
Q.15.	The height of a cuboid whose base area is 60 m^2 and volume is 1080 m^3_____.							
SECTION B (3 marks)								
Q.16.	Find the cost of painting the four walls of a room 12 metres long, 15 metres broad and 6 metres high at the cost of ₹ 18 per square meter?							
Q.17.	A square sheet of paper is converted into a cylinder by rolling it along its side. What is the ratio of the base radius to the side of the square?							
Q.18.	The area of a trapezium is 1152 m^2. Its parallel sides are in the ratio 5:7 and the perpendicular distance between them is 24 m. What is the measurement of the parallel sides?							
Q.19.	Water flows from a tank with a rectangular base measuring 55 cm by 154 cm into another tank with a square base of side 77 cm. If the water in the first tank is 70 cm deep, how deep will it be in the second tank?							
Q.20.	The ratio of the surface area of two cubes is 36:49. Find the ratio of their volumes?							
	SECTION C (4 marks)							
Q.21.	Three cubes of metal whose edges are 6 m, 8 m and 10 m respectively are melted and a single cube is formed. What is the length of the newly formed cube?							
Q.22.	A box is 64 cm x 45 cm x 600 cm. How many soaps can be fitted in it if each measures 18 cm x 5 cm x 30 cm?							
Q.23.	A class room is 21 m long, 18 m wide and 6 m high. Find the cost of cementing it floor and walls at the rate of ₹ 32 per m^2?							

Q.24.	A cylindrical pillar is 50 cm in diameter and 5.6 m in height. Find the cost of whitewashing the curved surface of the pillar at the rate of ₹ 14 per m^2.
Q.25.	A running track has 2 semicircular ends of radius 63 m and two straight lengths. The perimeter of the track is 1000 m. Find each straight length.

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Answers

Answers	**1**	C	**2**	B	**3**	A	**4**	B
	5	D	**6**	C	**7**	D	**8**	A
	9	B	**10**	C	**11**	729 cm^3	**12**	12 cm
	13	45 cm^2	**14**	1188 m^2	**15**	18 m	**16**	₹ 5,832
	17	$\frac{r}{a} = \frac{1}{2\pi}$	**18**	40 m, 56 m	**19**	100 m	**20**	216:343
	21	12 m	**22**	640 soaps	**23**	₹ 27,072	**24**	₹ 123.20
	25	302 m						