

## INDIAN SCHOOL AL WADI AL KABIR MATHEMATICS (2017-2018), WINTER HOLIDAY HOME WORK

1.	A contractor employed 69 men to complete a work in 20 days. How many more men should he employ in order to finish the work in 12 days?	46 more men
2.	Find the smallest number by which 1375 must be divided so that the quotient becomes a perfect cube and hence find the cube root of the quotient so obtained.	Smallest no.=11 Cube root=5
3.	The area of trapezium shaped field is 480m <sup>2</sup> . The distance between the parallel sides is 15m and one of the parallel side is 20m. Find other parallel side.	44m
4.	The diameter of a road roller is 84cm and its length is 120cm. It takes 500 complete revolutions to move once over to level a playground. Find the area of the playground in m <sup>2</sup> .	Area=1584m <sup>2</sup>
5.	The population of a town is increasing at a rate of 5% per annum. Find its population after 3 years if the present population is 80000.	92610 population after 3years
6.	An item marked at ₹840 is sold for ₹714.What is the discount and discount%?	D=₹ 126 D%=15%
7.	If the volume of a cube is 4096 cm <sup>3</sup> . Find the length of its side?	16cm
8.	Find the perimeter and area of a rectangle whose dimensions are $(2y^2-5y)$ and $(6y+7)$ .	$P=4y^2+2y+14$ $A=12y^3-16y^2-35y$
9.	A car was bought for ₹625000. Its value depreciates at the rate of 8% per annum. Find its value after 2 years.	₹529000
10.	Arya took a loan of ₹ 80000 from a bank. If the rate of interest is 10% per annum, Find the difference in amounts she would be paying after 1¹/₂ years, If the interest is (1) Compounded annually (2) Compounded semi-annually	1. Amount= ₹ 92400 2. Amount=₹ 92610 Difference=₹ 210
11.	12 pipes are required to fill a tank in 2 hours 40 minutes. How long will it take if only 10 pipes of the same type are used?	192min or 3hr12
12.	Find a, b if x and y are in direct proportion.    X 7 a 22   Y 21 57 b	a=19 b=66
13.	Simplify and find the value of $10m^2 - 3m(5+2m) - 10$ , if $m = (-2)$	36
14.	The area of a rhombus is 48m <sup>2</sup> . If one of the diagonal is 8cm, find the length of other diagonal.	12cm
15.	The length, breadth and height of a room are 5m, 4m and 3m respectively. Find the total cost of white washing 4 walls and ceiling of the room at the rate of ₹ 12 per m² and tiling the floor at the rate of ₹ 45 per m².	cost of white washing= \$888 cost of tiling= \$900 Total cost= \$1788
16.	The perimeter of one face of a cube is 20cm. Find its surface area.	a=5cm SA=150cm <sup>2</sup>
17.	Find a) $\sqrt[3]{216 \times 27}$ b) $\sqrt[3]{10 \times 10 \times 10 \times 0.125}$	a)18 b)5
18.	Find the volume of a rectangular box of dimension $2x^3y$ , $3xy^2\&6xy$	$V = 36x^5y^4$
19.	In a cylindrical cooking vessel the base radius is 14cm and the height is 20cm. How many litres of water can it hold?	Ans:12.320litre
20.	Find the least number to be subtracted from 5607 so as to get a perfect square. Also find the square root of the perfect square.	Least no.=131 Square root=74

Submission Date: 16th Jan 2018