

Grade 9
Mathematics
Covid 19-Weekly School

December 3rd week

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1.Consider number pattern with nth term $2n+3$.Which term is equal to 123?

2.Fill each cage with suitable digit?

$$\begin{array}{r} 101 \square_{\text{Two}} \\ + 0\square_{\text{Two}} 1 \\ \hline 1101_{\text{Two}} \end{array}$$

3.Oshan travelled $\frac{2}{3}$ of a journey by bus ,travelled $\frac{1}{4}$ of it by bicycle and walked remaining distance .

a).Express the distance he travelled by bus and by bicycle as a fraction of the total distance.

b)Express the distance he travelled by foot as a fraction of the total distance.

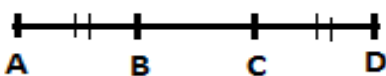
4.Find the value of $102^2 - 2^2$ using fractor knowledge.

5.Expand and simplify the following product of binomial expressions.

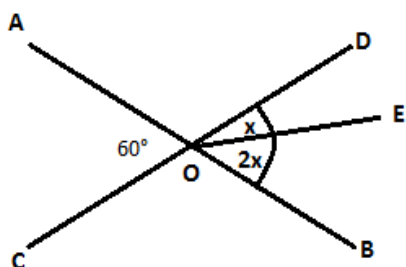
$$(x-5)(x+2)$$

6. A vendor buys exercise books at Rs 400 each, and sells them at Rs.480 each. Calculate the profit percentage earned by the Vendor from selling one exercise book.

7. If $AB=CD$ in figure, using axioms show that $AC=BD$.



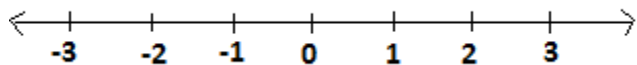
8. In the figure, the straight lines AB and CD intersect each other at O. Find the value of x



9. How many times of water be poured from a container with capacity of 50 ml to fill a container with a capacity of 4l.

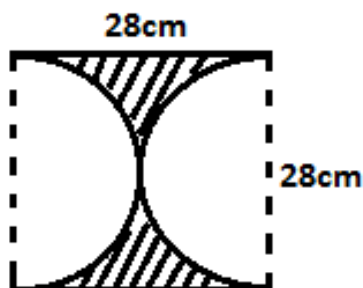
10. The scale of a map is 1:50000. If the actual distance between two cities is 50 km, How many centimeters is the distance between those two cities on the map.

11. Represent the solution set of the inequality $x \geq -2$ on the number line given below.



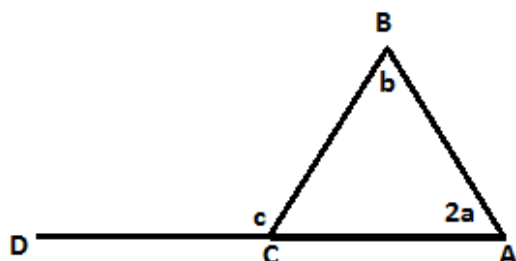
12. Find the probability that it will not be a black ball when you randomly draw a ball from a bag containing 5 blue balls, 2 red balls and a 3 black balls which are identical in all other aspects.

13. The figure shows two semi circles cut out of a piece of square cardboard of side length 28 cm. Find the area of the rest.



14. The sum of the interior angles of a polygon is three times the sum of exterior angles. Find the number of sides the polygon has.

15. As indicated in the figure given below, the side AC of the triangle ABC has been produced up to E. Moreover $\angle ABC = b$, $\angle BAC = 2a$ and $\angle BCD = c$. Write a relationship between $2a$, b and c .



16. Simplify. $\frac{1}{3} + \frac{3}{5} + \frac{5}{9}$

17. $P = 2 \times 10^6$ and $Q = 3 \times 10^4$ express the product of PQ in scientific notation.

18. Make t the subject in the formula $v = u + at$

19. Calculate the circumference of a circle of diameter 21 cm ($\pi = \frac{22}{7}$)

20. Samitha was able to buy 15 oranges for Rs 180 from a fruit shop. How many oranges can Samitha buy for 72 rupees?