



MATHS

BOOKS - MBD NCERT SOLUTIONS

BOARD QUESTION PAPER (SOLVED) - 2019

Set A Section A

1. Express 0.875 in the form $\frac{p}{q}$.



Watch Video Solution

2. Find the sum of the zeroes of the quadratic polynomial $6x^2 - 3 - 7x$.



[Watch Video Solution](#)

3. The solution of pair of linear equations

$3x + 4y = 10$ and $x - y = 1$, will be :

A. $x = 2, y = 3$

B. $x = -2, y = 1$

C. $x = 2, y = 1$

D. None of these

Answer: A



Watch Video Solution

4. 20th term of the A.P.

$-10, -6, -2, 2, \dots$ is :

A. 66

B. -66

C. 77

D. None of these

Answer: C



Watch Video Solution

5. Find the common difference of the A.P. 2, 7, 12,



Watch Video Solution

6. Fill in the blank using the correct word given in the bracket.

Two polygons of the same number of sides are similar, if their corresponding sides are

(equal, proportional)



[View Text Solution](#)

7. In a triangle, if square of one side is equal to the sum of the squares of other two sides, then the angle opposite the first side is :

A. 60°

B. 90°

C. 45°

D. 30°

Answer: B



View Text Solution

8. Fill in the blank :

A tangent to a circle intersects it is

Point(s).



[View Text Solution](#)

9. Find the distance between the points $(5, 7)$ and $(1, 3)$.



[Watch Video Solution](#)

10. Find the midpoint of the line joining the points $(1, 3)$ and $(3, 5)$.



[Watch Video Solution](#)

11. $\frac{\tan 65^\circ}{\cot 25^\circ}$



Watch Video Solution

12. In $\triangle ABC$, right angled at B, $AB = 21$ cm and $BC = 20$. The value of $\sin A$ is :

A. $\frac{21}{29}$

B. $\frac{20}{21}$

C. $\frac{20}{29}$

D. $\frac{21}{20}$.

Answer: A



Watch Video Solution

13. Find the area of a sector of a circle with radius 4 cm, if angle of the sector is 30° . ($\pi = 3.14$)



Watch Video Solution

14. The volume of the cuboid, whose length, breadth and height are 10 m, 8 m and 6 m

respectively is :

A. $510m^3$

B. $560m^3$

C. $480m^3$

D. $400m^3$

Answer:



Watch Video Solution

15. Find the probability to getting a head when a coin is tossed once.



[View Text Solution](#)

Set A Section B

1. Show that $5 - \sqrt{3}$ is irrational.



[View Text Solution](#)

2. A ladder is placed against a wall such that its foot is at a distance of 2.5 m from the wall and its top reaches a window 6 m above the ground. Find the length of the ladder.



[View Text Solution](#)

3. If A, B and C are interior angles of a triangle

ABC, then show that $\sin\left(\frac{B + C}{2}\right) = \frac{\cos A}{2}$.



[Watch Video Solution](#)

Set A Section C

1. Solve the following pair of linear equations by substitution methods.

$$8x + 5y = 9.$$

$$3x + 2y = 4.$$



Watch Video Solution

2. Find two consecutive positive integers, sum of whose square is 365.



View Text Solution

3. Find the sum of first 22 terms of an A.P. In which $d = 7$ and 22nd term is 149.



[Watch Video Solution](#)

4. Find the ratio in which the segment joining the points $A(-6, 10)$ and $B(3, -8)$ is divided by the point $(-4, 6)$.



[Watch Video Solution](#)

Set A Section D

1. A motor boat whose speed is 18 km/h in still water takes 1 hour more to go 24 km upstream than to return down stream to the same spot. Find the speed of the stream.



[View Text Solution](#)

2. The angle of elevation of the top of a tower from a point on the ground which is 30 m

away from the foot of the tower is 30° . Find the height of the tower.



[View Text Solution](#)

$$3. \frac{\cos A}{1 + \sin A} + \frac{1 + \sin A}{\cos A} = 2 \sec A$$



[Watch Video Solution](#)

4. A toy is in the form of a cone of radius 3.5 cm mounted on a hemisphere of same radius.

The total height of the toy is 15.5 cm. Find the total surface area of the toy.



[Watch Video Solution](#)

Section A

1. Express 0.375 in the form $\frac{p}{q}$.



[Watch Video Solution](#)

2. Find the sum of zeroes of quadratic polynomial $x^2 + 7x + 10$.



[Watch Video Solution](#)

3. Find the common difference of the A.P. :

3, 1, - 1, - 3,



[Watch Video Solution](#)

4. From a point Q , the length of the tangent to a circle is 24 cm and the distance of Q from the centre is 25 cm. The radius of circle is :

A. 15 cm

B. 12 cm

C. 24.5 cm

D. 7 cm.

Answer:



Watch Video Solution

5. Find the distance between the points $(2, 3)$ and $(4, 1)$.



Watch Video Solution

6. Find the mid point of the line joining the points $(7, 6)$ and $(-3, -4)$.



Watch Video Solution

7. In $\triangle ABC$, right - angled at B, $AB = 24$ cm, $BC = 7$ cm. The value of $\sin A$ is :

A. $\frac{7}{25}$

B. $\frac{7}{24}$

C. $\frac{24}{25}$

D. None of these.

Answer:



Watch Video Solution

8. The volume of the cuboid, whose length, breadth and height are 12 m, 10 m and 8 m respectively is :

A. $592m^3$

B. $960m^3$

C. $480m^3$

D. None of these.

Answer:



Watch Video Solution

9. Two dice are thrown at the same time. Find the probability of getting the sum of the dice is 8.



[Watch Video Solution](#)

Section B

1. Find the circumference of a circle whose area is 6.16cm^2 .



[Watch Video Solution](#)

Section D

1. A tower stands vertically on the ground. From a point on the ground, which is 15 m away from the foot of the tower is found to be 60° . Find the height of the tower.



[Watch Video Solution](#)

2. Prove that :

$$(\operatorname{cosec} \theta - \cot \theta)^2 = \frac{1 - \cos \theta}{1 + \cos \theta}.$$



[Watch Video Solution](#)

