MATHS

BOOKS - CBSE COMPLEMENTARY MATERIAL MATHS (HINGLISH)

PRACTICE TEST QUESTION PAPER 1

Section A

1. $(625)^{0.16} \times (625)^{0.09} =$

A. $2^{-\frac{1}{6}}$

5

B. 2^{-6}

25

C. $2^{\frac{1}{6}}$

125

D. 2^6

625.25

Answer: A::B

Watch Video Solution

2. if $\frac{x}{y} + \frac{y}{x} = -1(x, y \neq 0)$, then the value of $x^3 - y^3$ is

A. -1

B. 1

C. 0

D. $\frac{1}{2}$

Answer:

Watch Video Solution

3. If $a+b+c=0$ then $\left(\frac{a^2}{bc}+\frac{b^2}{ca}+\frac{c^2}{ab}\right)=?$

A. 1

B. 0

C. -1

D. 3

Answer: C

Watch Video Solution

4. the values of 249^2-248^2 is

A. 1^2

B. 477

C. 487

D. 497

Answer: D

Watch Video Solution

5. If (2,0) is a solution of the linear equation $2x+3y=k$, then the value of k is

A. 4

B. 6

C. 5

D. 2

Answer: D

Watch Video Solution

6. How many linear equations in x and y can be satisfied by $x=1$ and $y=2$?

A. Only One

B. Two

C. Infinitely many

D. Three

Answer: A

Watch Video Solution

7. If P(-1,1), Q(3,-4), R(1,-1), S(-2,-3) and T(-4,4)are plotted on the graph paper, then the point(s) in the fourth quadrant is/are

A. (4,0)

Pand T

B. (0,4)

Qand R

C. (1,4)

Only S

D. (4,2)

Pand R

Answer: A::B::D

Watch Video Solution

8. Angles of a triangle are in the ratio $2:4:3$. The smallest angle of the triangle is

A. 60^0

B. 40^0

C. 80^0

D. 20^0

Answer: D

Watch Video Solution

9. Two sides of a triangle are of lengths $5cm$ and $1.5cm$. The length of the third sid of the triangle cannot be (A) $3.6cm$ (B) $4.1cm$ (C) $3.8cm$ (D) $3.4cm$

A. 3.4cm

B. 3.6cm

C. 3.8cm

D. 4.1cm

Answer: C::D

Watch Video Solution

10. The figure obtained by joining the mid-points of the sides of a rhombus, taken in order, is

A. a rhombus

B. a rectangle

C. a square

D. any Parallelogram

Answer: A::C

Watch Video Solution

11. The sides of a triangle are 56 cm, 60 cm and 52 cm long. Then, the are of the triangle is

A. $1322cm^2$

B. $1311cm^2$

C. $1344cm^2$

D. $1392cm^2$

Answer: A::B::C::D

Watch Video Solution

12. The sides of a triangle are in the ratio 5 : 12 : 13 and its perimeter is 150 m. The area of the triangle is

A. $375cm^2$

B. $750cm^2$

C. $250cm^2$

D. $500cm^2$

Answer: B::C

Watch Video Solution

13. The total surface area of a cone whose radius is $\frac{r}{2}$ and slant height 2l is

A. $2\pi r(l + r)$

B. $\pi\left(l+\frac{r}{4}\right)$

C. $\pi r(l+r)$

D. $2\pi rl$

Answer: D

Watch Video Solution

14. The radius of a hemispherical balloon increases from 6 cm to 12 cm as air is being pumped into it. The ratios of the surfcae area of the balloom in the two cases is

A. $1:4$

B. $1:3$

C. $2:3$

D. $2:1$

Answer: A::D

Watch Video Solution

15. The class mark of the class 100-120 is

A. 100

B. 105

C. 115

D. 120

Answer: A

Watch Video Solution

16. The mean of five numbers is 30. If one number is excluded, their mean becomes 28. The excluded number is

A. 28

B. 30

C. 35

D. 38

Answer: C

Watch Video Solution

17. A coin is tossed 60 times and the tail appears 35 times . In a random throw of a coin , what is the probability of getting a head ?

A. $\frac{7}{12}$

B. $\frac{12}{7}$

C. $\frac{5}{12}$

D. $\frac{12}{5}$

Answer: A::B

Watch Video Solution

18. Fill in the blanks .

(i) Probability of an impossible event= .....

(ii) Probability of a sure event = ...

(iii) Let E be the event . Then , P(not E) = ...

(iv) P(E) + P(not E) = ...

(v) ..... $\leq P(E) \leq$ ..... .

Watch Video Solution

Section B

1. If the point (3, 4) lies on the graph of 3y=ax+7, then find the value of a.

Watch Video Solution

2. Find the area of the trapezium whose parallel sides are 14cm and 10cm and whose height is 6cm.

Watch Video Solution

3. The perimeter of an isosceles triangle is 32 cm. The ratio of the equal side to its base is 3:2. Find the area of the triangle.

Watch Video Solution

4. The diameter of a roller is 84 cm and its length is 120 cm. It takes 500 completerevolutions to move once over to level a playground. Find the area of the playgroundin m^2.

Watch Video Solution

Section C

1. if $a = 2 + \sqrt{3}$, then find the value of $\left(a - \frac{1}{a}\right)$.

Watch Video Solution

2. If $p = 2 - a,$ prove that $a^3 + 6ap + p^3 - 8 = 0$

Watch Video Solution

3. The taxi fare in a city is as follows, for the first kilometre, the fare is Rs. 8 and for the subsequent distance it is Rs. 5 per km. Taking the distance covered as x km and total fare as Rs y, write a linear equation for this information and draw its graph.

Watch Video Solution

4. Three vertices of a rectangle are $(3, 2), (4, 2).$ and $(-4, 5).$ Plot these points and find the coordinates of the fourth vertex.

Watch Video Solution

5. The measure of angles of a quadrilateral are $(x+20)^0$, $\left(x-20^0\right)^0$, $(2x+5)^0$ & $(2x-5)^0$. find the value of x.

Watch Video Solution

6. ABCD is trapezium in which $AB \mid\mid DC$, DC = 30 cm and AB = 50 cm. If X and Y are, respectively the mid-points of AD and BC, prove that $ar(DCYX) = \frac{7}{9}ar(XYBA)$.

Watch Video Solution

Section D

1. Show that:

$$\frac{1}{\left(3-\sqrt{8}\right)} - \frac{1}{\left(\sqrt{8}-\sqrt{7}\right)} + \frac{1}{\left(\sqrt{7}-\sqrt{6}\right)} - \frac{1}{\left(\sqrt{6}-\sqrt{5}\right)} + \frac{1}{\left(\sqrt{5}-2\right)}$$

Watch Video Solution

2. Factorise $8x^3 + 27y^3 + 36x^2y + 54xy^2$.

Watch Video Solution

3. Construct a triangle XYZ in which $\angle Y = 30^\circ, \angle Z = 90^\circ$ and XY + YZ + ZX = 11 cm

Watch Video Solution

4. The ratio between the curved surface area and the total surface area of a right circular cylinder is $1:2$. If the total surface area is $616cm^2$ then the volume of the cylinder is

Watch Video Solution

5. The mean of 100 items was found to be 64. Later on it was discovered that two items were misread as 26 and 9 instead of 36 and 90

respectively. The correct mean is

A. 63.88

B. 64.91

C. 65.66

D. 66.66

Answer: B

 Watch Video Solution