MATHS

BOOKS - OSWAL PUBLICATION

SAMPLE PAPER 2

Question Bank

1. Find the probability of getting an even number when a die is throuwn once.

A. $\dfrac{1}{2}$

B. $\dfrac{1}{4}$

C. $\dfrac{5}{6}$

D. $\dfrac{1}{6}$

Answer: A

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2. If $\cos\theta = \dfrac{3}{4}$, then find the value of $9\tan^2\theta + 9$.

A. 12

B. 15

C. 16

D. 17

Answer: C

3. Find the value of k for which the system of simultaneous equations $x + 2y = 5, 3x + ky + 15 = 0$ has no solution.

A. -6

B. 6

C. 0

D. 3

Answer: B

4. If $\tan^2 45° - \cos^2 30° = x \cdot \sin 45° \cos 45°$ then find the value of x.

A. $\dfrac{1}{2}$

B. $\dfrac{1}{6}$

C. $\dfrac{1}{4}$

D. $\dfrac{5}{6}$

Answer: A

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5. If the circumference of a circle is 22 cm, find the area of the semicircle.

A. 38.5 sq.cm

B. 19.25 sq.cm

C. 44 sq.cm

D. 77 sq.cm

A. $\dfrac{11}{2} cm^2$

B. $\dfrac{77}{4} cm^2$

C. $\dfrac{22}{7} cm^2$

D. $\dfrac{17}{3} cm^2$

Answer: B

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6. Find the value of $9 \cos ec^2 A - 9 \cot^2 A$.

A. 1

B. 0

C. -1

D. 9

Answer: D

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7. The number of polynomials having zeroes as -2 and 5 is

A. 1

B. 2

C. 3

D. more than 3

Answer: C

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8. If the radius of a circle is 9.8 cm, then what is the circumference of the circle.

A. 66 cm

B. 62.6 cm

C. 61.6 cm

D. 72.8 cm

Answer: C

9. What are the zeroes of the polynomial $x^2 - 9$?

A. $-3, 3$

B. $-2, 2$

C. $-4, 4$

D. $I\sqrt{3}$

Answer: A

10. The probability of getting a prime number when a die is thrown once is $\dfrac{2}{3}$.

A. $\dfrac{1}{2}$

B. $\dfrac{1}{4}$

C. $\dfrac{5}{6}$

D. $\dfrac{1}{6}$

Answer: A

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11. Value of $\dfrac{1 - \tan^2 45°}{1 + \tan^2 45°}$ is

A. -1

B. 0

C. 1

D. 2

Answer: B

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12. The area of a sector of angle $\theta°$ of a circle with radius

R is

A. $\dfrac{\theta}{180°} \times 2\pi R$

B. $\dfrac{\theta}{360°} \times \pi R$

C. $\dfrac{\theta}{360°} \times \pi R^2$

D. None of these

Answer: C

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13. If α and β are the zeros of $x^2 + 5x + 8$ then the value of $(\alpha + \beta)$ is

A. 8

B. $\dfrac{8}{5}$

C. 5

D. -5

Answer: D

14. What is the perimeter of a semicircle?

A. πr

B. $r(\pi + 2)$

C. $(2\pi r + 1)r$

D. $2\pi r$

Answer: B

15. A bag contains 3 red and 2 blue marbles. A marble is drawn at random. What is the probability of drawing a blue marble?

A. $\dfrac{2}{5}$

B. $\dfrac{3}{5}$

C. $\dfrac{4}{5}$

D. 1

Answer: A

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16. The persons start walking together and their steps measure 40 cm, 42 cm and 45 cm respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?

A. 2520

B. 3200

C. 5500

D. 1250

Answer: A

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17. For what value of k, -4 is a zero of the polynomial $x^2 - x - (2k + 2)$?

A. 10

B. 12

C. 9

D. 8

Answer: C

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18. If $x = p \sec \theta$ and $y = q \tan \theta$ then

A. $p^2 q^2$

B. $p^2 - q^2$

C. $\dfrac{p^2}{q^2}$

D. pq

Answer: A

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19. Two coins are tossed simultaneously. What is the probability of getting at the most one head?

A. $\dfrac{1}{2}$

B. $\dfrac{3}{4}$

C. $\dfrac{1}{3}$

D. $\dfrac{1}{4}$

Answer: B

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20. A single letter is selected at random from the word

"PROBABILITY" . The probability that it is a vowel is

A. $\dfrac{3}{11}$

B. $\dfrac{5}{11}$

C. $\dfrac{4}{11}$

D. $\dfrac{2}{11}$

Answer: C

21. Write the quadratic polynomial, whose zeroes and 1 and -2.

A. $x^2 + x + 2$

B. $x^2 + x - 2$

C. $x^2 - x - 2$

D. $x^2 + 2x - 1$

Answer: B

22. There is a circular path around a sports field. Priya takes 18 minutes to drive on round of the field, while Ravish takes 12 minutes for the same. Suppose they both start at the same point and at the same time, and go in the same direction. After how many minutes will they meet again at the starting point?

A. 12

B. 24

C. 36

D. 38

Answer: C

23. Find the value of $\sin 60° \cos 30° + \cos 60° \sin 30°$.

A. 2

B. 1

C. -1

D. 0

Answer: B

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24.   In

$\triangle ABC$ and $\triangle PQR$, $\dfrac{AB}{AC} = \dfrac{PQ}{PR}$, and $\angle BAC = \angle QPR$

, then

A. $\triangle ABC \sim \triangle QPR$

B. $\triangle BAC \sim \triangle RQP$

C. $\triangle ABC \sim \triangle PQR$

D. None of these

Answer: C

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25. The point (0,4) lies on axis.

A. x

B. y

C. Origin

D. Equadrant

Answer: A

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26. A test consists of 'True' or 'False' questions. One mark is awarded for every correct answer while $\dfrac{1}{4}$ mark is deducted for every wrong answer. A student knew answers to some of the questions. Rest of the questions he attempted by guessing. He answered 120 questions and got 90 marks.

Type of Question	Marks given for correct answer	Marks deducted for wrong answer
True/False	1	0.25

If answer to all questions he attempted by guessing were wrong, then how many questions did he answer correctly?

A. 24

B. 96

C. 70

D. 100

Answer: B

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27. Two building I and II are of heights 19 m and 40 m respectively 20 m apart. The distance between their tops

is:

A. $\sqrt{1961}m$

B. $\sqrt{802}m$

C. 29 m

D. 41 m

Answer: C

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28. If $A = 2n + 13,\ B = n + 7,$ where n is a natural number then HCF of A and B is

A. 1

B. 2

C. 3

D. 4

Answer: A

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29. In a $\triangle ABC, BD \perp AC$ such that $BD^2 = DC. AD,$ then:

A. $\angle A = 90°$

B. $\angle B = 90°$

C. $\angle C = 90°$

D. ABC is not a right angled triangle

Answer: B

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30. Given below is the graph representing two lines equatinos by lines AB and CD respectivly. What is the area of the triangle formed by these two lines are the line

y=0?
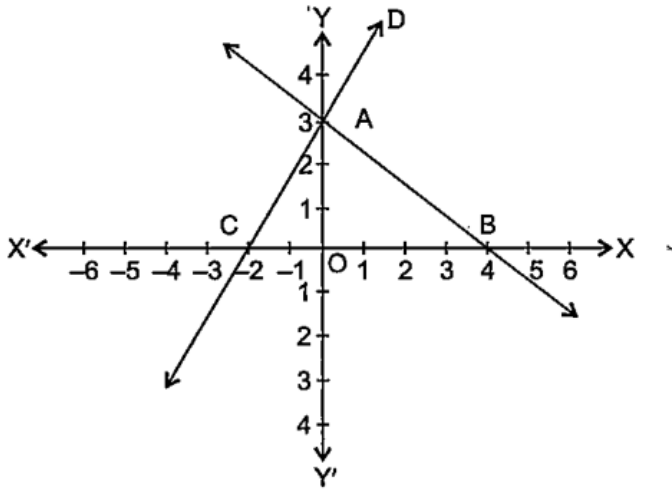
A. 7.5 Sq. units

B. 9 Sq. Units

C. 8 Sq. units

D. 6 Sq. units

Answer: B

31. Which of the following is not the graph of a quadratic polynomial?

A.

(a)

B.

(b)

C.

(c)

D.

(d)
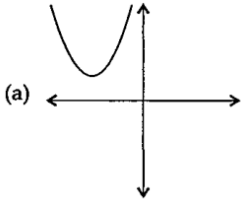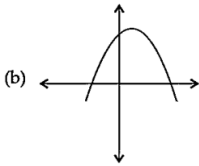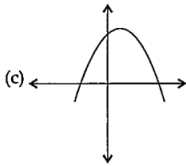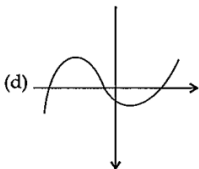
Answer: D

32. In the given figure, the side PQ of a right triangle $\triangle PQR$ where OP=6 cm, OR=8cm and QR=26 cm, is:

A. 21 cm

B. 23 cm

C. 24 cm

D. 36 cm

Answer: C

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33. Two vertices of a triangle are $(3, -5) and (-7, 4)$. If its centroid is $(2, -1)$, find the third vertiex.

   A. (10, 2)

   B. (-10, 2)

   C. (10, -2)

   D. (-10, -2)

Answer: C

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34. AOBC is a rectangle whose three vertices are A(0,-3), O(0,0) and B (4,0). The length of its diagonal is__

A. 5

B. 3

C. $\sqrt{34}$
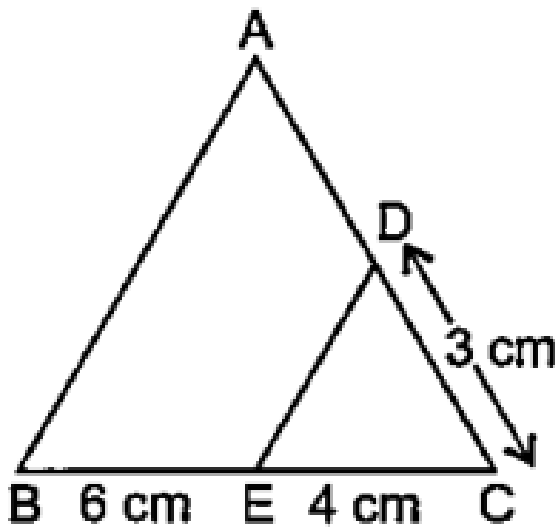
D. 4

Answer: C

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35. In $\triangle ABC, DEIIAB.$ If CD=3cm, EC=4 cm BE=6 cm, then AD is equal to:

A. 7.5 cm

B. 3 cm

C. 4.5 cm

D. 6 cm

Answer: C

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36. The Hypotenuse of a right triangle is 25 cm and out of the remaining two sides, one is larger than the other by 5 cm, find the lenghts of the other two sides.

    A. 20 cm

    B. 15 cm

    C. 12.5 cm

    D. 10 cm

Answer: A

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37. $5\tan^2 A - 5\sec^2 A + 1$ is equal to

(a) 6

(b) -5

(c) 1

(d) -4

    A. 6

    B. -5

    C. 1

    D. -4

Answer: D

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38. $\dfrac{1 - \cos A}{\sin A}$ is equal to

A. $\dfrac{\sin A}{1 - \cos A}$

B. $\dfrac{\sin A}{1 + \cos A}$

C. $\dfrac{\cos A}{1 - \cos A}$

D. $\dfrac{\cos A}{1 + \cos A}$

Answer: B

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39. If the probability of an event is P, then the probability

of its completely event will be

A. P-1

B. P

C. 1-P

D. $\dfrac{1-1}{P}$

Answer: C

40. The mid-points of a line segment joining two points A(2, 4) and B(-2, -4).

A. (-2, 4)

B. (2, -4)

C. (0, 0)
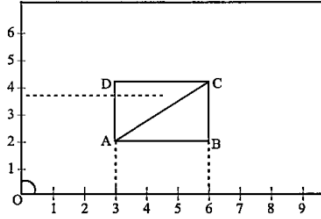
D. (-2, -4)

Answer: C

41. Case Study-1: Secondary school of Paschim Vihar their 10th class students on an agriculture trip. There they learn about the different phases of agriculture i.e., preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in figure. Teacher then divided the number of students is to prepare the soil on this area of plot.

Consider O as origin, answer the following questions :
Answer the following questions :

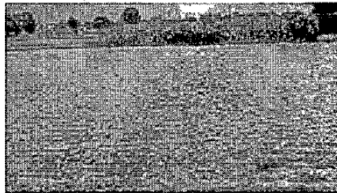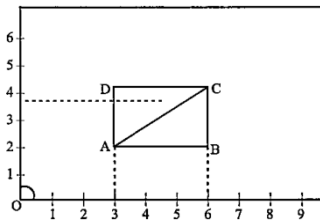## What are the co-ordinates of point C?

A. (0, 0)

B. (3, 4)

C. (4, 6)

D. (6, 4)

Answer: D

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42. Case Study-1: Secondary school of Paschim Vihar their 10th class students on an agriculture trip. There they learn about the different phases of agriculture i.e., preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in figure. Teacher then divided the number of students is to prepare the soil on this area of plot.

Consider O as origin, answer the following questions :
Answer the following questions :

According to the given figure in which quadrant the barren land lies?

A. 1st quadrant
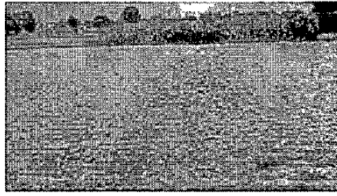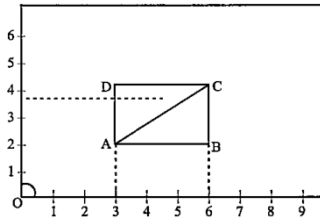
B. 2nd quadrant

C. 3rd quadrant

D. 4th quadrant

Answer: A

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43. Case Study-1: Secondary school of Paschim Vihar their 10th class students on an agriculture trip. There they learn about the different phases of agriculture i.e., preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in figure. Teacher then divided the number of students is to

prepare the soil on this area of plot.

Consider O as origin, answer the following questions :
Answer the following questions :

Find the length of the side AC.

A. 4 units
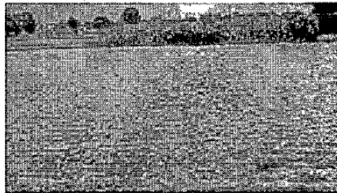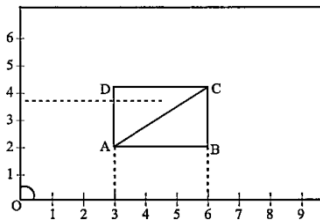
B. $\sqrt{13}$ units

C. 3 units

D. $\sqrt{11}$

Answer: B

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44. Case Study-1: Secondary school of Paschim Vihar their 10th class students on an agriculture trip. There they learn about the different phases of agriculture i.e., preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in figure. Teacher then divided the number of students is to prepare the soil on this area of plot.

Consider O as origin, answer the following questions :

Answer the following questions :

Find the co-ordinates of the mid-point of the side AC.

A. $\left(3, \dfrac{9}{2}\right)$

B. $(4, 2)$

C. $\left(\dfrac{9}{2}, 3\right)$

D. $(0, 0)$

Answer: C

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45. Case Study-1: Secondary school of Paschim Vihar their 10th class students on an agriculture trip. There they learn about the different phases of agriculture i.e., preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in figure. Teacher then divided the number of students is to prepare the soil on this area of plot.
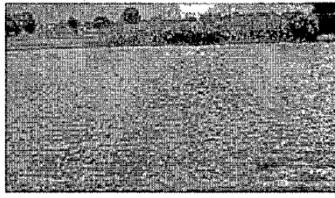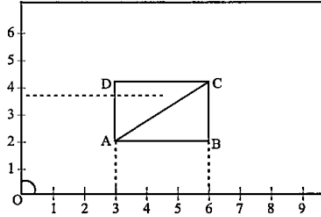
Consider O as origin, answer the following questions :
Answer the following questions :

Determmien the type of triangle formed by the points A, B and C.

A. Equilateral triangle

B. Isosceles triangle

C. Right angle triangle

D. None of these

Answer: C

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46. Case Study-2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times. There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows:

Find the HCF between two green lights:

A. 18

B. 20

C. 16

D. 22

Answer: A

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47. Case Study-2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he

take the timmings of nearby places in same area and

calculate I cm of all traffic stops and he easily manage the

traffic by increasing the duration set at different times.

There are two traffic lights on a particular highway which

shows green light at the interval of 90 seconds and 144

second respectively.

Read the above paragraph carefully and answer the

questions that follows:

Find the LCM between two green lights:

A. 720

B. 730

C. 710

D. 740

Answer: A

48. Case Study-2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times. There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows:

Factor tree is used for determining the:

A. HCF

B. LCM

C. prime factor

D. None of these

Answer: C

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49. Case Study-2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such

a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times. There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows:

Identify the correct option:

A. $HCF(a, b) \times LCM(a, b) = \dfrac{a}{b}$

B. $\dfrac{HCF(a, b)}{LCM(a, b)} = \dfrac{a}{b}$

C. $HCF(a, b) \times LCM(a, b) = a - b$

D. $HCF(a, b) \times LCM(a, b) = ab$

Answer: D

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50. Case Study-2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times.

There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows:

A number which do not have any factor other than 1, is:

    A. coprime number

    B. prime number

    C. coprime or prime number

    D. None of the above

Answer: A

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51. Find the probability of getting an even number when a die is throuwn once.

A. $\dfrac{1}{2}$

B. $\dfrac{1}{4}$

C. $\dfrac{5}{6}$

D. $\dfrac{1}{6}$

Answer: A

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52. If $\cos\theta = \dfrac{3}{4}$, then find the value of $9\tan^2\theta + 9$.

A. 12

B. 15

C. 16

D. 17

Answer: C

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53. The value of k for which the system of equations

$x + 2y = 5, \quad 3x + ky + 15 = 0$ has no solution is 6 (b)

-6 (c) $3/2$ (d) None of these

A. -6

B. 6

C. 0

D. 3

Answer: B

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54. If $\tan^2 45° - \cos^2 30° = x \cdot \sin 45° \cos 45°$ then find

the value of x.

A. $\dfrac{1}{2}$

B. $\dfrac{1}{6}$

C. $\dfrac{1}{4}$

D. $\dfrac{5}{6}$

Answer: A

55. If the circumference of a circle is 22 cm, find the area of the semicircle.

A. 38.5 sq.cm

B. 19.25 sq.cm

C. 44 sq.cm

D. 77 sq.cm

A. $\dfrac{11}{2} cm^2$

B. $\dfrac{77}{4} cm^2$

C. $\dfrac{22}{7} cm^2$

D. $\dfrac{17}{3} cm^2$

Answer: B

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56. Find the value of $9 \cos ec^2 A - 9 \cot^2 A$.

A. 1

B. 0

C. -1

D. 9

Answer: D

57. The number of polynomials having zeroes as -2 and 5

is

A. 1

B. 2

C. 3

D. more than 3

Answer: D

58. If the radius of a circle is 9.8 cm, then what is the circumference of the circle.

A. 66 cm

B. 62.6 cm

C. 61.6 cm

D. 72.8 cm

Answer: C

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59. What are the zeroes of the polynomial $x^2 - 9$?

A. $- 3, 3$

B. $- 2, 2$

C. $- 4, 4$

D. $1, \sqrt{3}$

Answer: A

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60. A die is thrown once. Find the probability of getting a number which (i) is a prime number (ii) lies between 2 and 6.

A. $\dfrac{1}{2}$

B. $\dfrac{1}{4}$

C. $\dfrac{5}{6}$

D. $\dfrac{1}{6}$

Answer: A

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61. Value of $\dfrac{1 - \tan^2 45°}{1 + \tan^2 45°}$ is

A. -1

B. 0

C. 1

D. 2

Answer: B

62. The area of a sector of angle $\theta°$ of a circle with radius R is

A. $\dfrac{\theta}{180°} \times 2\pi R$

B. $\dfrac{\theta}{360°} \times \pi R$

C. $\dfrac{\theta}{360°} \times \pi R^2$

D. None of these

Answer: C

63. If α and β are the zeros of $x^2 + 5x + 8$ then the value of $(\alpha + \beta)$ is

A. 8

B. $\dfrac{8}{5}$

C. 5

D. -5

Answer: D

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64. What is the perimeter of a semicircle?

A. πr

B. $r(\pi + 2)$

C. $(2\pi r + 1)r$

D. $2\pi r$

Answer: B

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65. A bag contains 3 red and 2 blue marbles. A marble is drawn at random. What is the probability of drawing a blue marble?

A. $\dfrac{2}{5}$

B. $\dfrac{3}{5}$

C. $\dfrac{4}{5}$

D. 1

Answer: A

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66. The persons start walking together and their steps measure 40 cm, 42 cm and 45 cm respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?

A. 2520

B. 3200

C. 5500

D. 1250

Answer: A

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67. For what value of k, -4 is a zero of the polynomial

$$x^2 - x - (2k + 2)$$?

A. 10

B. 12

C. 9

D. 8

Answer: C

68. If $x = p \sec \theta$ and $y = q \tan \theta$ then

A. $p^2 q^2$

B. $p^2 - q^2$

C. $\dfrac{p^2}{q^2}$

D. pq

Answer: A

69. Two coins are tossed simultaneously. What is the probability of getting at the most one head?

A. $\dfrac{1}{2}$

B. $\dfrac{3}{4}$

C. $\dfrac{1}{3}$

D. $\dfrac{1}{4}$

Answer: B

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70. A single letter is selected at random from the word "PROBABILITY" . The probability that it is a vowel is

A. $\dfrac{3}{11}$

B. $\dfrac{5}{11}$

C. $\dfrac{4}{11}$

D. $\dfrac{2}{11}$

Answer: C

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71. Write the quadratic polynomial, whose zeroes and 1 and -2.

A. $x^2 + x + 2$

B. $x^2 + x - 2$

C. $x^2 - x - 2$

D. $x^2 + 2x - 1$

Answer: B

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72. There is a circular path around a sports field. Priya takes 18 minutes to drive on round of the field, while Ravish takes 12 minutes for the same. Suppose they both start at the same point and at the same time, and go in the same direction. After how many minutes will they meet again at the starting point?

A. 12

B. 24

C. 36

D. 38

Answer: C

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73. Find the value of $\sin 60° \cos 30° + \cos 60° \sin 30°$.

A. 2

B. 1

C. -1

D. 0

Answer: B

74. In $\triangle ABC$ and $\triangle PQR$, $\dfrac{AB}{AC} = \dfrac{PQ}{PR}$, and $\angle BAC = \angle QPR$, then

   A. $\triangle ABC \sim \triangle QPR$

   B. $\triangle BAC \sim \triangle RQP$

   C. $\triangle ABC \sim \triangle PQR$

   D. None of these

Answer: C

75. The point (0,4) lies on axis.

A. x

B. y

C. Origin

D. Equadrant

Answer: A

76. A test consists of 'True' or 'False' questions. One mark is awarded for every correct answer while $\frac{1}{4}$ mark is deducted for every wrong answer. A student knew answers to some of the questions. Rest of the questions he attempted by guessing. He answered 120 questions and got 90 marks.

Type of Question	Marks given for correct answer	Marks deducted for wrong answer
True/False	1	0.25

If answer to all questions he attempted by guessing were wrong, then how many questions did he answer correctly?

A. 24

B. 96

C. 70

D. 100

Answer: B

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77. Two building I and II are of heights 19 m and 40 m respectively 20 m apart. The distance between their tops is:

A. $\sqrt{1961}m$

B. $\sqrt{802}m$

C. 29 m

D. 41 m

Answer: C

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78. If $A = 2n + 13$, $B = n + 7$, where n is a natural number then HCF of A and B is

A. 1

B. 2

C. 3

D. 4

Answer: A

79. In a $\triangle ABC$, $BD \perp AC$ such that $BD^2 = DC . AD$,

then:

A. $\angle A = 90°$

B. $\angle B = 90°$

C. $\angle C = 90°$

D. ABC is not a right angled triangle

Answer: B

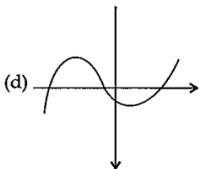**80.** Which of the following is not the graph of a quadratic polynomial?

(a)

A.

(b)

B.

(c)

C.

(d)

D.
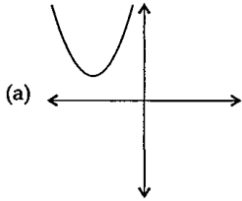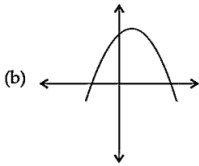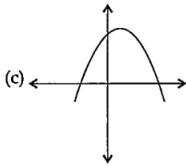
Answer: D

81. Calculate the area of right triangle PQR where ,OP=6cm,OR=8cm,and QR=26cm

82. Two vertices of a triangle are $(3, -5) and (-7, 4)$. If its centroid is $(2, -1)$, find the third vertiex.

A. (10, 2)

B. (-10, 2)

C. (10, -2)

D. (-10, -2)

Answer: B

83. If $AOBC$ is a rectangle whose three vertices are $A(0, 3)$,$O(0, 0)$ and $B(5, 0)$, then find the length of its diagonal.
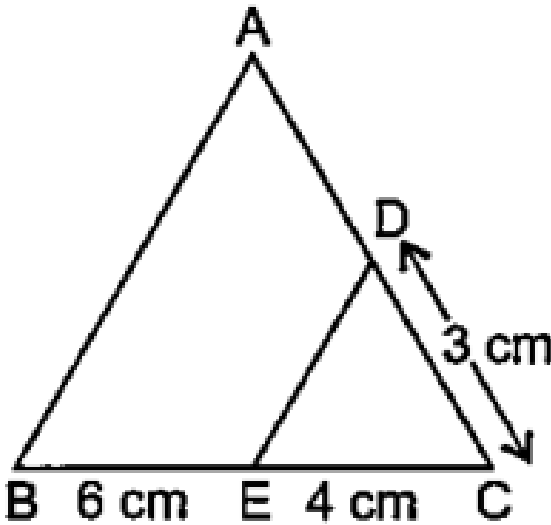
A. 5

B. 3

C. $\sqrt{34}$

D. 4

Answer: C

84. In $\triangle ABC$, $DE \| AB$. If CD=3cm, EC=4 cm BE=6 cm, then AD is equal to:

A. 7.5 cm

B. 3 cm

C. 4.5 cm

D. 6 cm

Answer: C

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85. The Hypotenuse of a right triangle is 25 cm and out of the remaining two sides, one is larger than the other by 5 cm, find the lenghts of the other two sides.

A. 20 cm

B. 15 cm

C. 12.5 cm

D. 10 cm

Answer: A

86. $5\tan^2 A - 5\sec^2 A + 1$ is equal to

(a) 6

(b) -5

(c) 1

(d) -4

    A. 6

    B. -5

    C. 1

    D. -4

Answer: D

87. $\dfrac{1 - \cos A}{\sin A}$ is equal to

A. $\dfrac{\sin A}{1 - \cos A}$

B. $\dfrac{\sin A}{1 + \cos A}$

C. $\dfrac{\cos A}{1 - \cos A}$

D. $\dfrac{\cos A}{1 + \cos A}$

Answer: B

88. If the probability of an event is P, then the probability of its completely event will be

A. P-1

B. P

C. 1-P

D. $\dfrac{1-1}{P}$

Answer: C

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89. The mid-points of a line segment joining two points A(2, 4) and B(-2, -4).
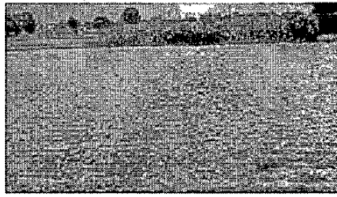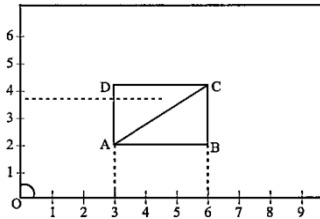
A. (-2, 4)

B. (2, -4)

C. (0, 0)

D. (-2, -4)

Answer: C

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90. Case Study-1: Secondary school of Paschim Vihar their 10th class students on an agriculture trip. There they learn about the different phases of agriculture i.e., preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in

figure. Teacher then divided the number of students is to prepare the soil on this area of plot.

Consider O as origin, answer the following questions :
Answer the following questions :

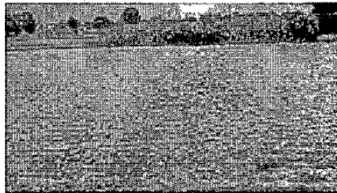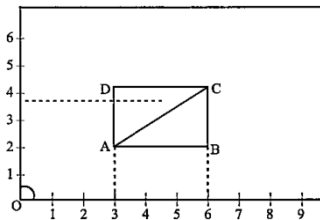## What are the co-ordinates of point C?

A. (0, 0)

B. (3, 4)

C. (4, 6)

D. (6, 4)

Answer: D

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91. Case Study-1: Secondary school of Paschim Vihar their

10th class students on an agriculture trip. There they

learn about the different phases of agriculture i.e.,

preparation of soil, sowing of seed, irrigation etc. Then

farmer provide them rectangular barren land as shown in

figure. Teacher then divided the number of students is to

prepare the soil on this area of plot.

Consider O as origin, answer the following questions :
Answer the following questions :

According to the given figure in which quadrant the

barren land lies?

A. 1st quadrant
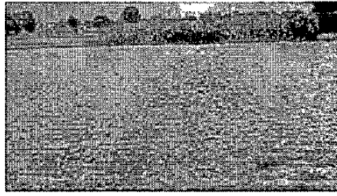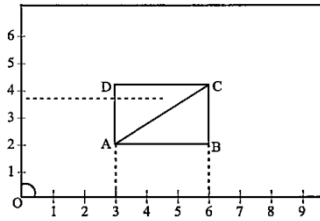
B. 2nd quadrant

C. 3rd quadrant

D. 4th quadrant

Answer: A

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92. Case Study-1: Secondary school of Paschim Vihar their 10th class students on an agriculture trip. There they learn about the different phases of agriculture i.e., preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in figure. Teacher then divided the number of students is to

prepare the soil on this area of plot.

Consider O as origin, answer the following questions :
Answer the following questions :

Find the length of the side AC.

A. 4 units
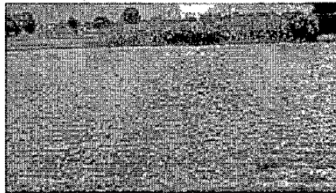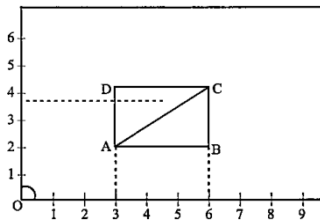
B. $\sqrt{13}$ units

C. 3 units

D. $\sqrt{11}$

Answer: B

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93. Case Study-1: Secondary school of Paschim Vihar their 10th class students on an agriculture trip. There they learn about the different phases of agriculture i.e., preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in figure. Teacher then divided the number of students is to prepare the soil on this area of plot.

Consider O as origin, answer the following questions :
Answer the following questions :

Find the co-ordinates of the mid-point of the side AC.

A. $\left(3, \dfrac{9}{2}\right)$

B. $(4, 2)$

C. $\left(\dfrac{9}{2}, 3 \right)$

D. $(0, 0)$

Answer: C

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94. Case Study-1: Secondary school of Paschim Vihar their 10th class students on an agriculture trip. There they learn about the different phases of agriculture i.e., preparation of soil, sowing of seed, irrigation etc. Then farmer provide them rectangular barren land as shown in figure. Teacher then divided the number of students is to prepare the soil on this area of plot.
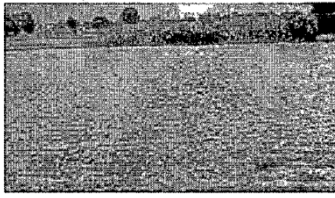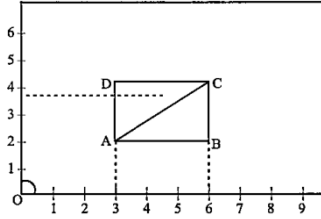
Consider O as origin, answer the following questions :
Answer the following questions :

Determmien the type of triangle formed by the points A, B and C.

A. Equilateral triangle

B. Isosceles triangle

C. Right angle triangle

D. None of these

Answer: C

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95. Case Study-2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times. There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows:

Find the HCF between two green lights:

A. 18

B. 20

C. 16

D. 22

Answer: A

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96. Case Study-2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he

take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times. There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows:

Find the LCM between two green lights:

A. 720

B. 730

C. 710

D. 740

Answer: A

97. Case Study-2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times. There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows:

Factor tree is used for determining the:

A. HCF

B. LCM

C. prime factor

D. None of these

Answer: C

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98. Case Study-2 : In our daily life we all see traffic lights.

A traffic controller set the timings of traffic lights is such

a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times. There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows:

Identify the correct option:

A. $HCF(a, b) \times LCM(a, b) = \dfrac{a}{b}$

B. $\dfrac{HCF(a, b)}{LCM(a, b)} = \dfrac{a}{b}$

C. $HCF(a, b) \times LCM(a, b) = a - b$

D. $HCF(a, b) \times LCM(a, b) = ab$

Answer: D

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99. Case Study-2 : In our daily life we all see traffic lights. A traffic controller set the timings of traffic lights is such a way that all light are not green at the same time or specially not in the rush hout. It may create problem in an hour because lights are for few minutes only. So, he take the timmings of nearby places in same area and calculate I cm of all traffic stops and he easily manage the traffic by increasing the duration set at different times.

There are two traffic lights on a particular highway which shows green light at the interval of 90 seconds and 144 second respectively.

Read the above paragraph carefully and answer the questions that follows:

A number which do not have any factor other than 1, is:

    A. coprime number

    B. prime number

    C. coprime or prime number

    D. None of the above

Answer: A