MATHS

BOOKS - OSWAL PUBLICATION

SAMPLE PAPER 1

Question Bank

1. What is the HCF of 16 and 32?

A. 4

B. 12

C. 16

D. 20

Answer: C

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2. If the probability of winning a game is 0.3, what is the probability of loosing it?

A. 0.5

B. 0.3

C. 0.7

D. Not defined

Answer: C

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3. A sector is cut from a circle of 21 cm diameter. If the angle is $150°$ then what will be its area?

(Use $\pi = \dfrac{22}{7}$)

A. $144.38 cm^2$

B. $150.21 cm^2$

C. $121.82 cm^2$

D. $151.27 cm^2$

Answer: A

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4. Give the polynomial of degree 2 with sum and product of its zeros as $-\dfrac{1}{2}$ and -3 respectively:

A. $\left(x^2 - x + 6\right) = 0$

B. $\left(2x^2 + x - 6\right) = 0$

C. $\left(x^2 + x - 3\right) = 0$

D. $\left(x^2 - 2x + 3\right) = 0$

Answer: B

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5. Graphically, the pair of equations

$6x - 3y + 10 = 0$

$$2x - y + 9 = 0$$

represents two lines which are

A. Intersecting lines

B. Coincident lines

C. Parallel lines

D. Can't decide

Answer: C

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6. What should be the factors of denominator, so that a rational number can be expressed, as teminating decimal?

    A. 2 or 5

    B. only 2

    C. only 5

    D. 2 and 5

Answer: A

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7. If the circumference of a circle is eqaul to the perimeter of a square, then what will be the ratio of their areas ? (Where $\pi = \dfrac{22}{7}$)

A. $14 : 11$

B. $21 : 1$

C. $11 : 4$

D. $5 : 7$

Answer: A

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8. Has the rational number $\dfrac{441}{2^2 \times 5^7 \times 7^2}$ a terminating or a non-terminating decimal representation?

    A. Terminating

    B. Non-terminating

    C. Neither

    D. Not

Answer: A

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9. Find the coefficient of x^0 in $x^2 + 3x + 2 = 0$.

A. 3

B. -3

C. 2

D. -2

Answer: C

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10. What is the HCF of the smallest composite number and the smallest prime number?

A. 2

B. 1

C. 3

D. 4

Answer: A

▶ **Watch Video Solution**

11. If the HCF of (336,54)=6, find the LCM (336,54)

A. 336

B. 54

C. 3024

D. 6

Answer: C

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12. Find the distance of the point A(8, -6) from the origin.

A. 12

B. 86

C. 8

D. 10

Answer: D

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13. Find the roots of $x + \dfrac{1}{x} = 2$

A. $14:11$

B. $1:1$

C. $11:4$

D. $5:7$

Answer: B

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14. Calculate the value of c for which pair of linear equations cx - y = 2 and 6x - 2y = 4 will have infinitely many solutions.

A. 5

B. 6

C. 3

D. None of these

Answer: C

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15. The radii of two concentric circles are 4 cm and 5 cm. The difference in the areas of these two circles is :

A. 9π

B. 16π

C. 25π

D. 32π

Answer: A

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16. If $x + y = 2500$ and $x - y = 2500$ then the value of x is:

A. 2500

B. 5000

C. 3000

D. 4000

Answer: A

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17. Which triogonometric ratio related the adjacent side and opposite side of the right-angled triangle?

A. $\sin \theta$

B. $\cos \theta$

C. $\tan \theta$

D. $\sec \theta$

Answer: C

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18. If $x = \dfrac{8 \pm \sqrt{(-8)^2 - 4 \times 3 \times 2}}{2 \times 3}$ then

the required polynomial is:

A. $3x^2 - 8x + 2 = 0$

B. $2x^2 - 8x - 2 = 0$

C. $3x^2 + 8x - 2 = 0$

D. $3x^2 + 8x + 2 = 0$

Answer: A

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19. The distance between the points $A\left(-\dfrac{8}{5}, 2\right)$ and $B\left(\dfrac{2}{5}, 2\right)$ is:

A. 5 units

B. $-5 units$

C. 2 units

D. 7 units

Answer: C

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20. The values of x and y in $2x + 3y = 2$ and $x - 2y = 8$ are:

A. $-4, 2$

B. $-4, -2$

C. $4, -2$

D. $4, 2$

Answer: C

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21. If the value of θ is $45°$, then what is the value of $\sec 45°$?

A. 0

B. $\dfrac{2}{\sqrt{3}}$

C. $\sqrt{2}$

D. 1

Answer: C

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22. The distance of the point (-12,5) from the origin is

A. 17 units

B. 7 units

C. 13 units

D. 15 units

Answer: C

▶ Watch Video Solution

23. Find the coefficient of x^0 in $x^2 + 3x + 2 = 0$.

A. 3

B. -3

C. 2

D. -2

Answer: C

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24. Which of the following statement is false?

A. All isosceles triangles are similar.

B. All square are similar.

C. All circles are similar

D. None of these

Answer: A

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25. Which among the following ratio, is not opposite of each other?

A. $\sin\theta$ and $\cos\theta$

B. $\cos\theta$ and $\sec\theta$

C. $\tan\theta$ and $\cot\theta$

D. $\cos ec\theta$ and $\sin\theta$

Answer: A

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26. The LCM of two co-prime numbers is their .

A. product of numbers

B. sum of numbers

C. difference of numbers

D. None of these

Answer: A

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27. Suppose angle of depression from top of the tower to point A is $45°$ and height of tower is 26 m. What is the distance of point A from the building?

A. 25 m

B. 26 m

C. 31 m

D. 18 m

Answer: B

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28. The values of x and y in $3x + 2y = 4$ and

$2x - 3y = 7$ are:

    A. $2, \ -1$

    B. $2, 1$

    C. $-2, \ -1$

    D. $-2, 1$

Answer: A

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29. A ladder 10 m long reaches a window 8 m above the ground. Find the distance of the foot of the ladder from the base of the wall.

A. 8

B. 2

C. 6

D. 4

Answer: C

30. Complete this identity : $\sec^2 \theta - 1 =$ _____

A. $\cos^2 \theta$

B. $\sin^2 \theta$

C. $\tan^2 \theta$

D. $\cos ec^2 \theta$

Answer: C

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31. A die is thrown twice. Find the probability that:

5 will not come up either time

A. $\dfrac{23}{36}$

B. $\dfrac{25}{36}$

C. $\dfrac{13}{36}$

D. $\dfrac{11}{36}$

Answer: B

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32. Equation $ax^2 + bx + c = 0$ represents a quadratic equation if and only if ....

A. $a \neq 0$

B. a=b

C. a=c

D. a=0

Answer: A

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33. If the end points of a line segment AB are A(6, 8) and (-2, -2) then its mid-point is:

A. (2, 3)

B. (3, 2)

C. (4, 6)

D. None of these

Answer: A

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34. If sec A+tan A=x, then tan A:

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

B. $\dfrac{1}{2}x$

C. $\dfrac{x^2 - 1}{2x}$

D. $\dfrac{2x}{x^2 - 1}$

Answer: C

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35. The values of x and y in $x - y + 1 = 0$ and

$3x + 2y - 12 = 0$ are:

A. $2, \; -3$

B. $-2, 3$

C. $-2, \; -3$

D. $2, 3$

Answer: D

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36. Two different dice are tossed together. Find the probability :

of getting sum 10, of the number on the two dice.

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

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

C. $\dfrac{1}{12}$

D. $\dfrac{2}{3}$

Answer: C

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37. If $x = 2\sin^2\theta$ and $y = 2\cos^2\theta + 1$ then

the value of x+ y is

A. 3

B. 4

C. 5

D. 6

Answer: A

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38. For which value of p will the equation $(p^2 - 1)x^2 + px + q = 0$ not be a quadratic equation?

A. p=1

B. p=-1

C. Both (i) and (ii)

D. p=0

Answer: C

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39. What is the probability that a non-leap year has 53 Sundays? $\dfrac{6}{7}$ (b) $\dfrac{1}{7}$ (c) $\dfrac{5}{7}$ (d) None of these

A. $\dfrac{6}{7}$

B. $\dfrac{1}{7}$

C. $\dfrac{2}{7}$

D. $\dfrac{3}{7}$

Answer: B

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40. If the difference between the circumference and the radius of a circle is 37 cm, then using $\pi = \dfrac{22}{7}$, the radius of the circel (in cm) is:
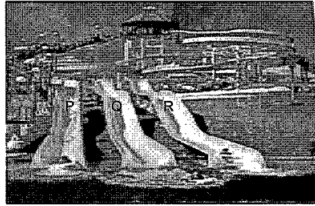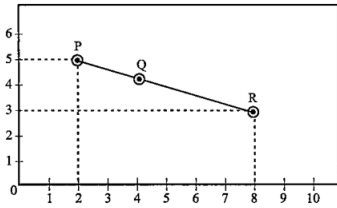
A. 154

B. 44

C. 14

D. 7

Answer: D

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41. Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3 slides by point P, Q and R.
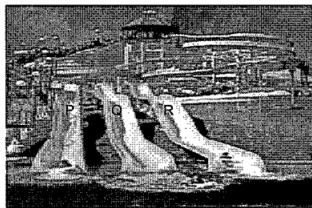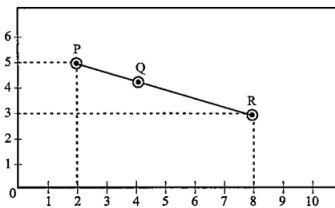
Consider 'O' as origin, answer the below questions :

Find the coordinates of the point 'Q' which

divides the line segment PR in th ratio $1:2$ internally:

A. $\left(4, \dfrac{13}{3}\right)$

B. $\left(\dfrac{13}{3}, \dfrac{11}{3}\right)$

C. $\left(\dfrac{10}{3}, \dfrac{13}{3}\right)$
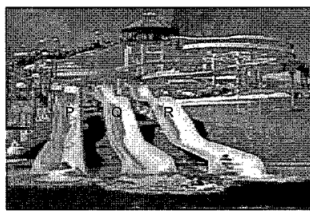
D. $\left(\dfrac{13}{3}, 4\right)$

Answer: A

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42. Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3 slides by point P, Q and R.
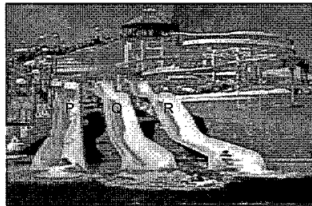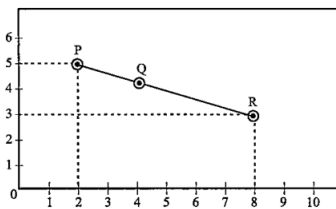
Consider 'O' as origin, answer the below questions :

Find the distance between the point's P and R:

A. $2\sqrt{10}$

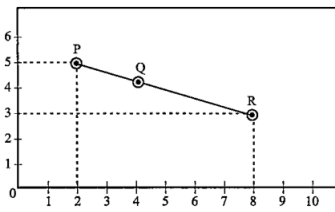B. $\sqrt{36}$

C. $\sqrt{38}$

D. $\sqrt{20}$

Answer: A

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43. Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3 slides by point P, Q and R.

Consider 'O' as origin, answer the below questions :

Find the coordinates of point on X-axis which is at equal distance from P and Q:

A. $\left(\dfrac{11}{9}, 0\right)$

B. $(3, 0)$

C. $\left(\dfrac{3}{4}, 0\right)$

D. $(1, 3)$

Answer: C

44. Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3 slides by point P, Q and R.

Consider 'O' as origin, answer the below questions :

Find the length of P and Q.

A. $\sqrt{3}$

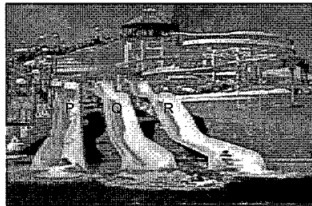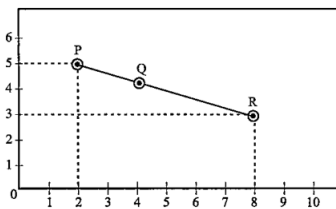B. $\sqrt{4}$

C. $\sqrt{5}$

D. $\sqrt{6}$

Answer: C

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45. Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3 slides by point P, Q and R.

Consider 'O' as origin, answer the below questions :

If we shift the origin 'O' by 2 units towards right and 1 unit towards. North. Then find the coordinate of point R:

A. (10, 4)

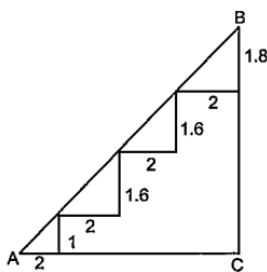B. (6, 2)

C. (6, 3)

D. (8, 3)

Answer: B

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46. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he

gave contract to a building contractor. After

few days of construction he observed that

there is a defect in staircase construction, like

few stairs are big, few are small, all steps are

not of same size. Here is teh staircase as

shown in fig., connecting points A and B.

Measurements of each steps are marked in the

figure.

Based on the above information answer the following questions.

By using which property/theorem we can

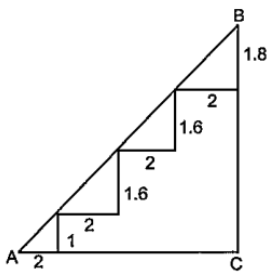determine the straight line distance between end points of the stair case?

A. Thales theorem

B. Similarity property

C. Pythagoras theorem

D. Area of triangle

Answer: C

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47. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After few days of construction he observed that there is a defect in staircase construction, like few stairs are big, few are small, all steps are not of same size. Here is teh staircase as shown in fig., connecting points A and B. Measurements of each steps are marked in the figure.

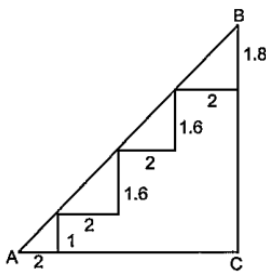Based on the above information answer the following questions.

Find the length of the straight line A and B.

A. 10 units

B. 12 units

C. 6 units

D. 8 units

Answer: A

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48. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After few days of construction he observed that there is a defect in staircase construction, like few stairs are big, few are small, all steps are not of same size. Here is teh staircase as shown in fig., connecting points A and B. Measurements of each steps are marked in the figure.

Based on the above information answer the following questions.

Which of the following is incorrect with respect to Pythagoras theorem?

A. It is applicable to right angled triangle.

B. It is also known as Baudhayan theorem.

C. The square of hypotenuse is equal to the sum of square of other two sides.
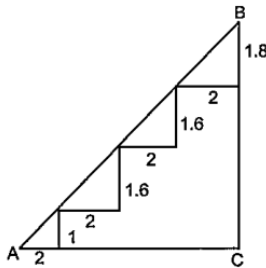
D. It is applicable to all type of triangle.

Answer: D

49. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After few days of construction he observed that there is a defect in staircase construction, like few stairs are big, few are small, all steps are not of same size. Here is teh staircase as

shown in fig., connecting points A and B.

Measurements of each steps are marked in the figure.

Based on the above information answer the following questions.

Keeping the distance of points AC, AB and BC same, what can be the possible height of each stair case?

A. 1.5 units

B. 1.4 units
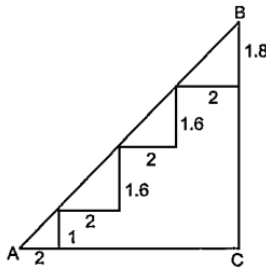
C. 1.3 units

D. 1.6 units

Answer: A

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50. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After few days of construction he observed that

there is a defect in staircase construction, like few stairs are big, few are small, all steps are not of same size. Here is teh staircase as shown in fig., connecting points A and B. Measurements of each steps are marked in the figure.

Based on the above information answer the following questions.

If he wants length and breadth of each stair to be same i.e., 2 units. Then what is the new distance between points A and B?

A. $8\sqrt{2}$ units

B. 8 units

C. 9 units

D. 10 units

Answer: A

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51. What is the HCF of 16 and 32?

A. 4

B. 12

C. 16

D. 20

Answer: C

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52. If the probability of winning a game is 0.3,

what is the probability of loosing it?

A. 0.5

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C. 0.7

D. Not defined

Answer: C

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53. A sector is cut from a circle of 21 cm diameter. If the angle is $150°$ then what will be its area?

(Use $\pi = \dfrac{22}{7}$)

A. $144.38 cm^2$

B. $150.21 cm^2$

C. $121.82 cm^2$

D. $151.27 cm^2$

Answer: A

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54. Give the polynomial of degree 2 with sum and product of its zeros as $-\dfrac{1}{2}$ and -3 respectively:

A. $k\left(x^2 - x + 6\right)$

B. $k\left(2x^2 + x - 6\right)$

C. $k\left(x^2 + x - 3\right)$

D. $k\left(x^2 - 2x + 3\right)$

Answer: B

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55. Graphically, the pair of equations

$6x - 3y + 10 = 0$

$$2x - y + 9 = 0$$

represents two lines which are

A. Intersecting lines

B. Coincident lines

C. Parallel lines

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A. 2 or 5

B. only 2

C. only 5

D. 2 and 5

Answer: A

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    A. $14:11$

    B. $21:1$

    C. $11:4$

    D. $5:7$

Answer: A

58. Has the rational number $\dfrac{441}{2^{2.5} \, {}^{\wedge} \, 7.7^{2}}$ a terminating or a non-terminatin decimal representation ?

A. Terminating

B. Non-terminating

C. Neither

D. Not

Answer: B

59. Find the coefficient of x^0 in $x^2 + 3x + 2 = 0.$

A. 3

B. -3

C. 2

D. -2

Answer: C

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60. What is the HCF of the smallest composite number and the smallest prime number?

A. 2

B. 1

C. 3

D. 4

Answer: A

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A. 336

B. 54

C. 3024

D. 6

Answer: C

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62. The distance of the point P(-6, 8) from the origin is

A. 12

B. 86

C. 8

D. 10

Answer: D

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63. Find the roots of $x + \dfrac{1}{x} = 2$

A. $14 : 11$

B. $1 : 1$

C. $11 : 4$

D. $5 : 7$

Answer: B

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64. Find the value of k for which the system of equations $kx - y = 2, 6x - 2y = 4$ has infinitely many solutions

A. 5

B. 6

C. 3

D. None of these

Answer: C

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65. The radii of two concentric circles are 4 cm and 5 cm. The difference in the areas of these two circles is :

    A. 9π

    B. 16π

    C. 25π

    D. 32π

Answer: A

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A. 2500

B. 5000

C. 3000

D. 4000

Answer: A

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67. Which triogonometric ratio related the adjacent side and opposite side of the right-angled triangle?

A. $\sin\theta$

B. $\cos\theta$

C. $\tan\theta$

D. $\sec\theta$

Answer: C

68. If $x = \dfrac{8 \pm \sqrt{(-8)^2 - 4 \times 3 \times 2}}{2 \times 3}$ then

the required polynomial is:

A. $3x^2 - 8x + 2 = 0$

B. $2x^2 - 8x - 2 = 0$

C. $3x^2 + 8x - 2 = 0$

D. $3x^2 + 8x + 2 = 0$

Answer: A

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69. The distance between the points $A\left(-\dfrac{8}{5}, 2\right)$ and $B\left(\dfrac{2}{5}, 2\right)$ is:

A. 5 units

B. $-5 units$

C. 2 units

D. 7 units

Answer: C

70. The values of x and y in $2x + 3y = 2$ and $x - 2y = 8$ are:

    A. $-4, 2$

    B. $-4, -2$

    C. $4, -2$

    D. $4, 2$

Answer: C

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71. If the value of θ is $45°$, then what is the value of $\sec 45°$?

A. 0

B. $\dfrac{2}{\sqrt{3}}$

C. $\sqrt{2}$

D. 1

Answer: C

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72. The distance of the point A (12, 5) from the origin is:

A. 17 units

B. 7 units

C. 13 units

D. 15 units

Answer: C

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73. Find the coefficient of x^0 in $x^2 + 3x + 2 = 0.$

A. 3

B. -3

C. 2

D. -2

Answer: C

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74. Which of the following statement is false?

A. All isosceles triangles are similar.

B. All square are similar.

C. All circles are similar

D. None of these

Answer: A

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75. Which among the following ratio, is not opposite of each other?

    A. $\sin\theta$ and $\cos\theta$

    B. $\cos\theta$ and $\sec\theta$

    C. $\tan\theta$ and $\cot\theta$

    D. $\cos ec\theta$ and $\sin\theta$

Answer: A

76. The LCM of two co-prime numbers is their .

A. product of numbers

B. sum of numbers

C. difference of numbers

D. None of these

Answer: A

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77. If the distance of a point from the base of a building is 15 m and angle of elevation to its top from that point is $60°$. then what is the height of building?

    A. 25 m

    B. 26 m

    C. 31 m

    D. 18 m

Answer: B

78. The values of x and y in $3x + 2y = 4$ and

$2x - 3y = 7$ are:

    A. $2, \; -1$

    B. $2, 1$

    C. $-2, \; -1$

    D. $-2, 1$

Answer: A

79. A ladder 10 m long reaches a window 8 m above the ground. Find the distance of the foot of the ladder from the base of the wall.

A. 8

B. 2

C. 6

D. 4

Answer: C

80. Prove that-

$$\sec^2 \theta - 1 - \tan^2 \theta = 0$$

A. $\cos^2 \theta$

B. $\sin^2 \theta$

C. $\tan^2 \theta$

D. $\cos ec^2 \theta$

Answer: C

81. A die is thrown twice. Find the probability that:

5 will not come up either time

A. $\dfrac{23}{36}$

B. $\dfrac{25}{36}$

C. $\dfrac{13}{36}$

D. $\dfrac{11}{36}$

Answer: B

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82. Equation $ax^2 + bx + c = 0$ represents a quadratic equation if and only if ....

A. $a \neq 0$

B. a=b

C. a=c

D. a=0

Answer: A

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83. If the end points of a line segment AB are A(6, 8) and (-2, -2) then its mid-point is:

A. (2, 3)

B. (3, 2)

C. (4, 6)

D. None of these

Answer: A

84. If $\sec\theta + \tan\theta = x$, then $\tan\theta =$

$\dfrac{x^2 + 1}{x}$ (b) $\dfrac{x^2 - 1}{x}$ (c) $\dfrac{x^2 + 1}{2x}$ (d) $\dfrac{x^2 - 1}{2x}$

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

B. $\dfrac{1}{2}x$

C. $\dfrac{x^2 - 1}{2x}$

D. $\dfrac{2x}{x^2 - 1}$

Answer: C

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85. The values of x and y in $x - y + 1 = 0$ and $3x + 2y - 12 = 0$ are:

A. $2, \ -3$

B. $-2, 3$

C. $-2, \ -3$

D. $2, 3$

Answer: D

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86. Two different dice are tossed together. Find the probability :

of getting sum 10, of the number on the two dice.

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

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

C. $\dfrac{1}{12}$

D. $\dfrac{2}{3}$

Answer: C

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87. If $x = 2\sin^2\theta$ and $y = 2\cos^2\theta + 1$ then the value of x+ y is

A. 3

B. 4

C. 5

D. 6

Answer: A

88. For which value of p will the equation $(p^2 - 1) x^2 + px + q = 0$ not be a quadratic equation?

A. p=1

B. p=-1

C. Both (i) and (ii)

D. p=0

Answer: C

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89. What is the probability that a non-leap year has 53 Sundays? $\frac{6}{7}$ (b) $\frac{1}{7}$ (c) $\frac{5}{7}$ (d) None of these

A. $\frac{6}{7}$

B. $\frac{1}{7}$

C. $\frac{2}{7}$

D. $\frac{3}{7}$

Answer: B

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90. If the difference between the circumference and the radius of a circle is 37 cm, then using $\pi = \dfrac{22}{7}$, the radius of the circel (in cm) is:

A. 154

B. 44

C. 14

D. 7

Answer: D

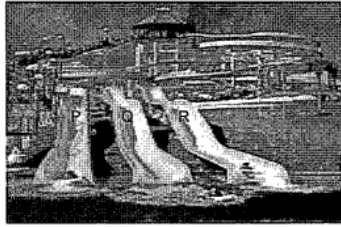**91.** Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3 slides by point P, Q and R.
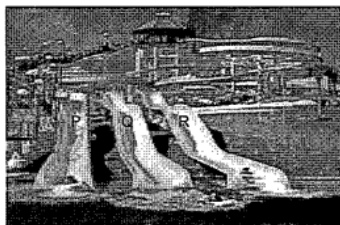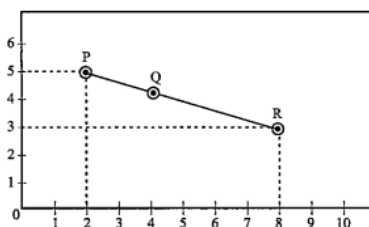
Find the coordinates of the point 'Q' which divides the line segment PR in th ratio $1:2$ internally:

A. $\left(4, \dfrac{13}{3}\right)$

B. $\left(\dfrac{13}{3}, \dfrac{11}{3}\right)$

C. $\left(\dfrac{10}{3}, \dfrac{13}{3}\right)$
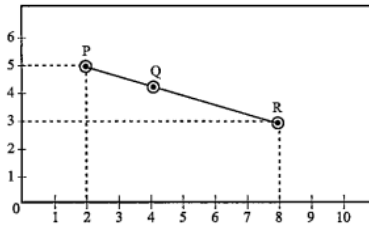
D. $\left(\dfrac{13}{3}, 4\right)$

Answer: A

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92. Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3 slides by point P, Q and R.

Find the distance between the point's P and R:

A. $2\sqrt{10}$

B. $\sqrt{36}$

C. $\sqrt{38}$

D. $\sqrt{20}$
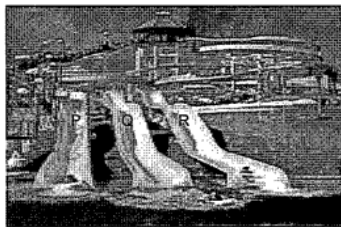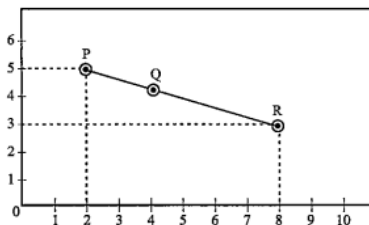
Answer: A

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93. Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3

slides by point P, Q and R.

Find the coordinates of point on X-axis which

is at equal distance from P and Q:

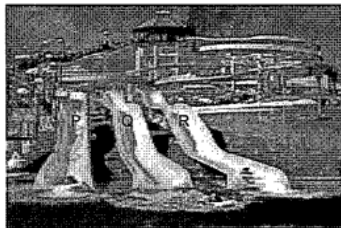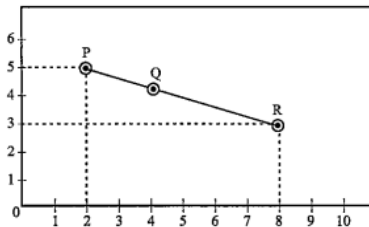A. $\left(\dfrac{11}{9}, 0\right)$

B. $(3, 0)$

C. $\left(\dfrac{3}{4}, 0\right)$

D. $(1, 3)$

Answer: C

94. Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber slide.

The graph below shows the position of these 3 slides by point P, Q and R.

Find the length of P and Q.

A. $\sqrt{3}$

B. $\sqrt{4}$
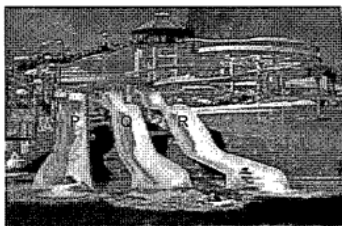
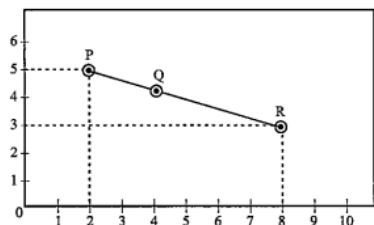C. $\sqrt{5}$

D. $\sqrt{6}$

Answer: C

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95. Case Study-1: Some friends of class X goes to picnic at waterpark. There were slides i.e. water coaster, aqua loop and launch chamber

slide.

The graph below shows the position of these 3

slides by point P, Q and R.

If we shift the origin 'O' by 2 units towards

right and 1 unit towards. North. Then find the

coordinate of point R:
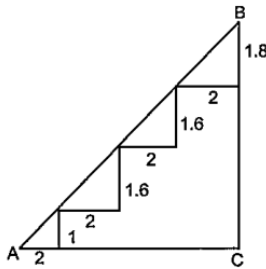
A. (10, 4)

B. (6, 2)

C. (6, 3)

D. (8, 3)

Answer: B

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96. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After few days of construction he observed that there is a defect in staircase construction, like

few stairs are big, few are small, all steps are

not of same size. Here is teh staircase as

shown in fig., connecting points A and B.

Measurements of each steps are marked in the

figure.

Based on the above information answer the following questions.

By using which property/theorem we can

determine the straight line distance between

end points of the stair case?

A. Thales theorem

B. Similarity property
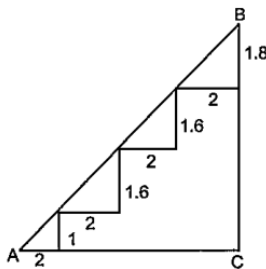
C. Pythagoras theorem

D. Area of triangle

Answer: C

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97. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After

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few stairs are big, few are small, all steps are

not of same size. Here is teh staircase as

shown in fig., connecting points A and B.

Measurements of each steps are marked in the

figure.

Based on the above information answer the following questions.

Find the length of the straight line A and B.

A. 10 units
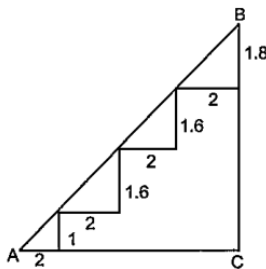
B. 12 units

C. 6 units

D. 8 units

Answer: A

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98. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After

few days of construction he observed that

there is a defect in staircase construction, like

few stairs are big, few are small, all steps are

not of same size. Here is teh staircase as

shown in fig., connecting points A and B.

Measurements of each steps are marked in the

figure.

Based on the above information answer the following questions.

Which of the following is incorrect with
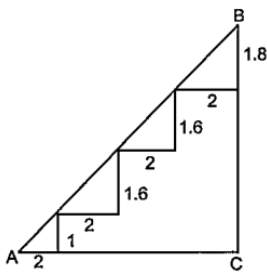
respect to Pythagoras theorem?

A. It is applicable to right angled triangle.

B. It is also known as Baudhayan theorem.

C. The square of hypotenuse is equal to the

sum of square of other two sides.

D. It is applicable to all type of triangle.

Answer: D

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99. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After few days of construction he observed that there is a defect in staircase construction, like few stairs are big, few are small, all steps are not of same size. Here is teh staircase as shown in fig., connecting points A and B. Measurements of each steps are marked in the figure.

Based on the above information answer the following questions.

Keeping the distance of points AC, AB and BC same, what can be the possible height of each stair case?

A. 1.5 units
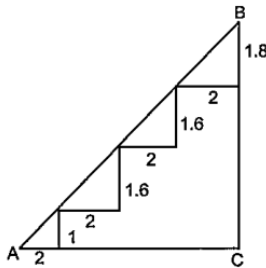
B. 1.4 units

C. 1.3 units

D. 1.6 units

Answer: A

100. Case Study-2 : Herman has a single storey house. He decided to construct a new second storey in his house. For the construction he gave contract to a building contractor. After few days of construction he observed that there is a defect in staircase construction, like few stairs are big, few are small, all steps are not of same size. Here is teh staircase as

shown in fig., connecting points A and B.

Measurements of each steps are marked in the figure.

Based on the above information answer the following questions.

If he wants length and breadth of each stair to be same i.e., 2 units. Then what is the new distance between points A and B?

A. $8\sqrt{2}$ units

B. 8 units

C. 9 units

D. 10 units

Answer: A

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