



Azra Taj

## Class 10 Maths Full Test Mock Test Result

Result	Marks	Percentage	Result Date
Fail	30	30%	26-03-2023

### : - Result Stats

Score	30	Accuracy %	30
Avg Time Per Question	8 Sec	Total Question	100
Total Question Attempted	100	Total Question Answered	100
Correct Answered	30	Total Time of Test	1:30 Hr
Time Spend	12:58 Min	Avg Time On Question	8 Sec
Non Productive Time	-	Benchmark	80

### : - Recommendation

Aww! Azra taj you have not pass the exam . Keep your heads up and focus on below points :

- Your question attempt speed is optimal

**Q.No. 1**

The father's age is six times his son's age. Four years hence, the age of the father will be four times his son's age. The present age of the son and his father are, respectively:

- (A) 4 and 24
- (B) 5 and 30
- (C) 6 and 36
- (D) 3 and 24

**Status : Wrong Answered**

**Correct Answer : (C)**

**Q.No. 2**

If one of the zeroes of the quadratic polynomial  $(k-1)x^2 + kx + 1$  is  $-3$ , then the value of  $k$  is

- (A)  $4/3$
- (B)  $-4/3$
- (C)  $2/3$
- (D)  $-2/3$

**Status : Correct Answered**

**Correct Answer : (A)**

**Q.No. 3**

If the perimeter and the area of a circle are numerically equal, then the radius of the circle is:

- (A) 2 units
- (B)  $\pi$  units
- (C) 4 units
- (D) 7 units

**Status : Correct Answered**

**Correct Answer : (A)**

**Q.No. 4**

The area of circle that can be inscribed in a square of side 6 cm is:

- (A)  $36\pi \text{ cm}^2$
- (B)  $18\pi \text{ cm}^2$
- (C)  $12\pi \text{ cm}^2$
- (D)  $9\pi \text{ cm}^2$

**Status : Wrong Answered**

**Correct Answer : (D)**

**Q.No. 5**

The 10th term of the AP: 5, 8, 11, 14, ... is

- (A) 32
- (B) 35
- (C) 38
- (D) 185

Status : **Correct Answered**

Correct Answer : **(A)**

---

**Q.No. 6**

If a marble of radius 2.1 cm is put into a cylindrical cup full of water of radius 5 cm and height 6 cm, then how much water flows out of the cylindrical cup?

- (A)  $38.8 \text{ cm}^3$
- (B)  $55.4 \text{ cm}^3$
- (C)  $19.4 \text{ cm}^3$
- (D)  $471.4 \text{ cm}^3$

Status : **Correct Answered**

Correct Answer : **(A)**

---

**Q.No. 7**

If  $x = a$ ,  $y = b$  is the solution of the equations  $x - y = 2$  and  $x + y = 4$ , then the values of  $a$  and  $b$  are, respectively

- (A) 3 and 5
- (B) 5 and 3
- (C) 3 and 1
- (D) -1 and -3

Status : **Correct Answered**

Correct Answer : **(C)**

---

**Q.No. 8**

Values of  $k$  for which the quadratic equations  $2x^2 - kx + k = 0$  has equal roots is:

- (A) 0 only
- (B) 4
- (C) 8 only
- (D) 0,8

Status : **Wrong Answered**

Correct Answer : **(D)**

---

**Q.No. 9**

If  $\cos(\alpha + \beta) = 0$ , then  $\sin(\alpha - \beta)$  can be reduced to

- (A)  $\cos \beta$
- (B)  $\cos 2\beta$
- (C)  $\sin \alpha$
- (D)  $\sin 2\alpha$

Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 10**

For the following distribution :

Marks	Number of students
Below 10	3
Below 20	12
Below 30	27
Below 40	57
Below 50	75
Below 60	80

the modal class is

- (A) 10-20
- (B) 20-30
- (C) 30-40
- (D) 50-60

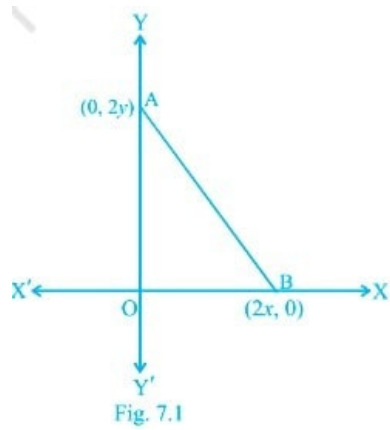
Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 11**

The coordinates of the point which is equidistant from the three vertices of the  $\Delta AOB$  as shown in the Fig. below



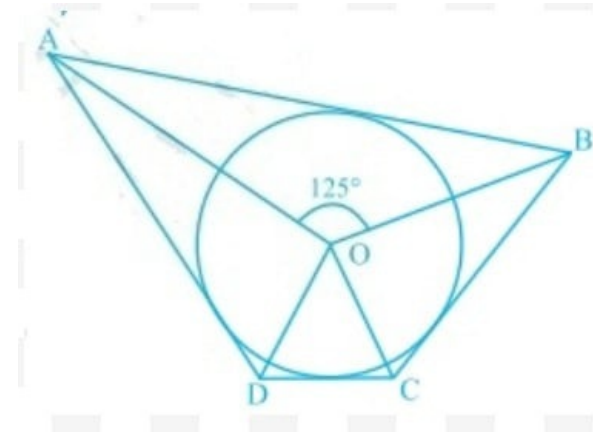
- (A)  $(x, y)$
- (B)  $(y, x)$
- (C)  $x/2, y/2$
- (D)  $y/2, x/2$

Status : Correct Answered

Correct Answer : (A)

**Q.No. 12**

In Fig. if  $\angle AOB = 125^\circ$ , then  $\angle COD$  is equal to



- (A)  $62.5^\circ$
- (B)  $45^\circ$
- (C)  $35^\circ$
- (D)  $55^\circ$

Status : Correct Answered

Correct Answer : (D)

**Q.No. 13**

The mid-point of the line segment joining the points A (-2, 8) and B (- 6, - 4) is:

- (A) (-4, -6)
- (B) (2, 6)
- (C) (-4, 2)
- (D) (4,2)

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 14**

The shape of a glass (tumbler) is usually in the form of



- (A) a cone
- (B) frustum of a cone
- (C) a cylinder
- (D) a sphere

Status : **Correct Answered**

Correct Answer : **(B)**

---

**Q.No. 15**

A circle drawn with the origin as the center passes through  $(\frac{13}{2}, 0)$ . The point which does not lie in the interior of the circle is

- (A)  $(-\frac{3}{4}, 1)$
- (B)  $(2, \frac{7}{2})$
- (C)  $(5, -\frac{1}{2})$
- (D)  $(-6, \frac{5}{2})$

Status : **Wrong Answered**

Correct Answer : **(D)**

---

**Q.No. 16**

The list of numbers - 10, - 6, - 2, 2,... is

- (A) an AP with  $d = - 16$
- (B) an AP with  $d = 4$
- (C) an AP with  $d = - 4$
- (D) not an AP

Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 17**

The sum of first five multiples of 3 is

- (A) 45
- (B) 55
- (C) 65
- (D) 75

Status : **Correct Answered**

Correct Answer : **(A)**

---

**Q.No. 18**

To draw a pair of tangents to a circle which are inclined to each other at an angle of  $35^\circ$ , it is required to draw tangents at the end points of those two radii of the circle, the angle between which is

- (A)  $105^\circ$
- (B)  $70^\circ$
- (C)  $140^\circ$
- (D)  $145^\circ$

Status : **Correct Answered**

Correct Answer : **(D)**

---

**Q.No. 19**

If a card is selected from a deck of 52 cards, then the probability of its being a red face card is:

- (A)  $3/26$
- (B)  $3/13$
- (C)  $2/13$
- (D)  $1/2$

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 20**

A surahi is the combination of:

- (A) a sphere and a cylinder
- (B) a hemisphere and a cylinder
- (C) two hemispheres
- (D) a cylinder and a cone

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 21**

A solid piece of iron in the form of a cuboid of dimensions 49cm x 33cm x 24cm, is moulded to form a solid sphere. The radius of the sphere is

- (A) 21cm
- (B) 23cm
- (C) 25cm
- (D) 19cm

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 22**

The sum of first 16 terms of the AP: 10, 6, 2,... is

- (A) -320
- (B) 320
- (C) -352
- (D) -400

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 23**

The famous mathematician associated with finding the sums of the first 100 natural numbers is

- (A) pythagoras
- (B) Newton
- (C) Gauss
- (D) Euclid

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 24**

In an AP if  $a = -7.2$ ,  $d = 3.6$ ,  $a_n = 7.2$ , then  $n$  is

- (A) 1
- (B) 3
- (C) 4
- (D) 5

Status : **Wrong Answered**

Correct Answer : **(D)**

---

**Q.No. 25**

Which of the following equations has two distinct real roots?

- (A)  $2x^2 - 3\sqrt{2}x + (9/4) = 0$
- (B)  $x^2 + x - 5 = 0$
- (C)  $x^2 + 3x + 2\sqrt{2} = 0$
- (D)  $5x^2 - 3x + 1 = 0$

Status : **Correct Answered**

Correct Answer : **(B)**

---

**Q.No. 26**

If the first term of an AP is  $-5$  and the common difference is  $2$ , then the sum of the first  $6$  terms is

- (A) 0
- (B) 5
- (C) 6
- (D) 15

Status : **Correct Answered**

Correct Answer : **(A)**

---

**Q.No. 27**

If the lines given by  $3x + 2ky = 2$  and  $2x + 5y + 1 = 0$  are parallel, then the value of  $k$  is

- (A)  $-5/4$
- (B)  $2/5$
- (C)  $15/4$
- (D)  $3/2$

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 28**

For what value of  $k$ , do the equations  $3x - y + 8 = 0$  and  $6x - ky = -16$  represent coincident lines?

- (A)  $1/2$
- (B)  $-1/2$
- (C)  $2$
- (D)  $-2$

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 29**

Which term of the AP: 21, 42, 63, 84,... is 210?

- (A) 9th
- (B) 10th
- (C) 11th
- (D) 12th

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 30**

Which of the the following can be the probability of an event?

- (A)  $-0.04$
- (B)  $1.004$
- (C)  $18/23$
- (D)  $8/7$

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 31**

If in triangles ABC and DEF,  $(AB/DE=BC/FD)$  then they will be similar, when:

- (A)  $\angle B = \angle E$
- (B)  $\angle A = \angle D$
- (C)  $\angle B = \angle D$
- (D)  $\angle A = \angle F$

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 32**

The radii of the top and bottom of a bucket of slant height 45 cm are 28 cm and 7 cm, respectively. The curved surface area of the bucket is

- (A) 4950 cm<sup>2</sup>
- (B) 4951 cm<sup>2</sup>
- (C) 4952 cm<sup>2</sup>
- (D) 4953 cm<sup>2</sup>

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 33**

If the distance between the points (4, p) and (1, 0) is 5, then the value of p is

- (A) 4 only
- (B)  $\pm 4$
- (C) - 4 only
- (D) 0

Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 34**

A mason constructs a wall of dimensions 270cm x 300cm x 350cm with the bricks each of size 22.5cm x 11.25cm x 8.75cm and it is assumed that 1/8 space is covered by the mortar. Then the number of bricks used to construct the wall is

- (A) 11100
- (B) 11200
- (C) 11000
- (D) 11300

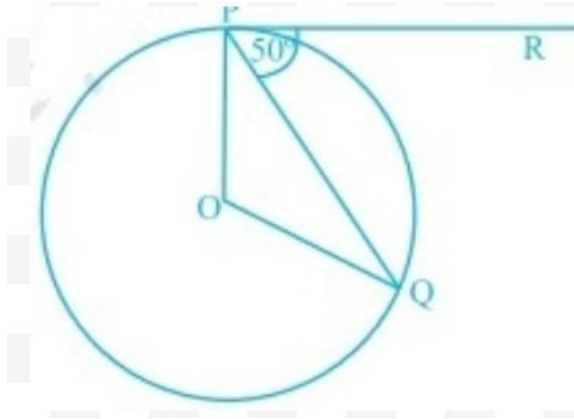
Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 35**

In Fig. if O is the centre of a circle, PQ is a chord and the tangent PR at P makes an angle of  $50^\circ$  with PQ, then  $\angle POQ$  is equal to



- (A)  $100^\circ$
- (B)  $80^\circ$
- (C)  $90^\circ$
- (D)  $75^\circ$

Status : **Wrong Answered**

Correct Answer : **(A)**

**Q.No. 36**

The fourth vertex D of a parallelogram ABCD whose three vertices are A (-2, 3), B (6, 7) and C (8, 3) is

- (A) (0, 1)
- (B) (0, -1)
- (C) (-1, 0)
- (D) (1, 0)

Status : **Correct Answered**

Correct Answer : **(B)**

**Q.No. 37**

The value of  $(\sin 45^\circ + \cos 45^\circ)$  is:

- (A)  $1/\sqrt{2}$
- (B)  $\sqrt{2}$
- (C)  $\sqrt{3}/2$
- (D) 1

Status : **Correct Answered**

Correct Answer : **(B)**

**Q.No. 38**

The times, in seconds, taken by 150 athletes to run a 110 m hurdle race are tabulated below :

Class	13.8-14	14-14.2	14.2-14.4	14.4-14.6	14.6-14.8	14.8-15
Frequency	2	4	5	71	48	20

The number of athletes who completed the race in less than 14.6 seconds is :

- (A) 11
- (B) 71
- (C) 82
- (D) 130

Status : **Correct Answered**

Correct Answer : **(C)**

**Q.No. 39**

If  $P(A)$  denotes the probability of an event  $A$ , then

- (A)  $P(A) < 0$
- (B)  $P(A) > 1$
- (C)  $0 \leq P(A) \leq 1$
- (D)  $-1 \leq P(A) \leq 1$

Status : **Wrong Answered**

Correct Answer : **(C)**

**Q.No. 40**

The abscissa of the point of intersection of the less than type and of the more than type cumulative frequency curves of a grouped data gives its:

- (A) mean
- (B) median
- (C) mode
- (D) All of these

Status : **Correct Answered**

Correct Answer : **(B)**

**Q.No. 41**

For the following distribution :

Class	0-5	5-10	10-15	15-20	20-25
Frequency	10	15	12	20	9

the sum of lower limits of the median class and modal class is

- (A) 15
- (B) 25
- (C) 30
- (D) 35

Status : **Wrong Answered**

Correct Answer : **(B)**

**Q.No. 42**

Which of the following equations has no real roots?

(A)  $x^2 - 4x + 3\sqrt{2} = 0$

(B)  $x^2 + 4x - 3\sqrt{2} = 0$

(C)  $x^2 - 4x - 3\sqrt{2} = 0$

(D)  $3x^2 + 4\sqrt{3}x + 4 = 0$

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 43**

When a die is thrown, the probability of getting an odd number less than 3 is:

(A)  $1/6$

(B)  $1/3$

(C)  $1/2$

(D) 0

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 44**

In an AP, if  $a = 3.5$ ,  $d = 0$ ,  $n = 101$ , then  $a_n$  will be

(A) 0

(B) 3.5

(C) 103.5

(D) 104.5

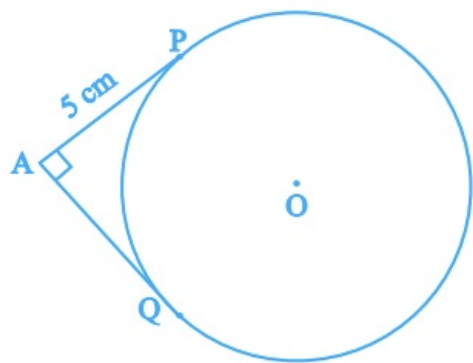
Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 45**

In the figure, the pair of tangents AP and AQ drawn from an external point A to a circle with centre O are perpendicular to each other and length of each tangent is 5 cm. Then the radius of the circle is:



- (A) 10 cm
- (B) 7.5 cm
- (C) 5 cm
- (D) 2.5 cm

Status : **Wrong Answered**

Correct Answer : **(C)**

**Q.No. 46**

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

- (A)
- (B)
- (C)
- (D)

Status : **Correct Answered**

Correct Answer : **(D)**

**Q.No. 47**

If the point P (2, 1) lies on the line segment joining points A (4, 2) and B (8, 4), then

- (A)  $AP = AB/3$
- (B)  $AP = PB$
- (C)  $PB = AB/3$
- (D)  $AP = AB/2$

Status : **Wrong Answered**

Correct Answer : **(D)**

---

**Q.No. 48**

If  $\theta$  is the angle (in degrees) of a sector of a circle of radius r, then area of the sector is:

- (A)  $\pi r^2 \theta / 360$
- (B)  $\pi r^2 \theta / 180$
- (C)  $2\pi r \theta / 360$
- (D) None of these

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 49**

The perimeter of a triangle with vertices (0,4), (0,0), (3, 0) is

- (A) 5
- (B) 12
- (C) 11
- (D)  $7 + \sqrt{5}$

Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 50**

The number of polynomials having zeros as -2 and 5 is :

- (A) 1
- (B) 2
- (C) 3
- (D) more than 3

Status : **Wrong Answered**

Correct Answer : **(D)**

---

**Q.No. 51**

If the area of a circle is  $154 \text{ cm}^2$ , then its perimeter is:

- (A) 11 cm
- (B) 22 cm
- (C) 44 cm
- (D) 55 cm

Status : **Correct Answered**

Correct Answer : **(C)**

---

**Q.No. 52**

While computing mean of grouped data, we assume that the frequencies are

- (A) evenly distributed over all the classes
- (B) centred at the classmarks of the classes
- (C) centred at the upper limits of the classes
- (D) centred at the lower limits of the classes

Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 53**

Area of the largest triangle that can be inscribed in a semi-circle of radius 'r' units is:

- (A)  $r^2$  sq. units
- (B)  $\frac{1}{2}r^2$  sq. units
- (C)  $2r^2$  sq. units
- (D)  $\sqrt{2} r^2$  sq. units

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 54**

The distance of the point P (2,3) from the x-axis is

- (A) 2
- (B) 3
- (C) 1
- (D) 5

Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 55**

Tick the correct answer and justify : In  $\triangle ABC$ ,  $AB=6\sqrt{3}$  CM,  $AC=12$ cm and  $BC =6$ cm. The angle B is:

- (A) 120
- (B) 60
- (C) 90
- (D) 45

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 56**

If  $\cos 9\alpha = \sin\alpha$  and  $9\alpha < 90^\circ$  , then the value of  $\tan 5\alpha$  is

- (A)  $1/\sqrt{3}$
- (B)  $\sqrt{3}$
- (C) 1
- (D) 0

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 57**

The lengths of the diagonals of a rhombus are 16 cm and 12 cm. Then, the length of the side of the rhombus is

- (A) 9 cm
- (B) 10 cm
- (C) 8 cm
- (D) 20 cm

Status : **Correct Answered**

Correct Answer : **(B)**

---

**Q.No. 58**

To construct a triangle similar to a given  $\triangle ABC$  with its sides  $(3/7)$  of the corresponding sides of  $\triangle ABC$ , first draw a ray BX such that  $\angle CBX$  is an acute angle and X lies on the opposite side of A with respect to BC. Then locate points  $B_1, B_2, B_3, \dots$  on BX at equal distances and next step is to join

- (A)  $B_{10}$  to C
- (B)  $B_3$  to C
- (C)  $B_7$  to C
- (D)  $B_4$  to C

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 59**

If pair of linear equations is consistent, then the lines will be:

- (A) parallel
- (B) always coincident
- (C) intersecting or coincident
- (D) always intersecting

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 60**

The sum of first five positive integers divisible by 6 is :

- (A) 180
- (B) 90
- (C) 45
- (D) 30

Status : **Correct Answered**

Correct Answer : **(B)**

---

**Q.No. 61**

Consider the data :

Class	65-85	85-105	105-125	125-145	145-165	165-185	185-205
Frequency	4	5	13	20	14	7	4

The difference of the upper limit of the median class and the lower limit of the modal class is

- (A) 0
- (B) 19
- (C) 20
- (D) 38

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 62**

Which constant should be added and subtracted to solve the quadratic equation  $4x^2 - \sqrt{3}x - 5 = 0$  by the method of completing the square?

- (A)  $\frac{9}{16}$
- (B)  $\frac{3}{16}$
- (C)  $\frac{3}{4}$
- (D)  $\frac{\sqrt{3}}{4}$

Status : **Correct Answered**

Correct Answer : **(B)**

---

**Q.No. 63**

Which one of the following is not a quadratic equation?

(A)  $(x+2)^2 = 2(x + 3)$

(B)  $x^2 + 3x = (-1)(1-3x)^2$

(C)  $(x + 2)(x - 1) = x^2 - 2x - 3$

(D)  $x^3 - x^2 + 2x + 1 = (x+1)^3$

Status : **Correct Answered**

Correct Answer : **(C)**

---

**Q.No. 64**

which of the following is a quadratic equation?

(A)  $x^2 + 2x + 1 = (4-x)^2 + 3$

(B)  $-2x^2 = (5-x)(2x-2/5)$

(C)  $(k+1)x^2 + (3/2)x = 7$ , where  $k = -1$

(D)  $x^3 - x^2 = (x-1)^3$

Status : **Wrong Answered**

Correct Answer : **(D)**

---

**Q.No. 65**

If  $1/2$  is a root of  $x^2 + kx - (5/4) = 0$ , then the value of  $k$  is

(A) 2

(B) -2

(C)  $1/2$

(D)  $-1/2$

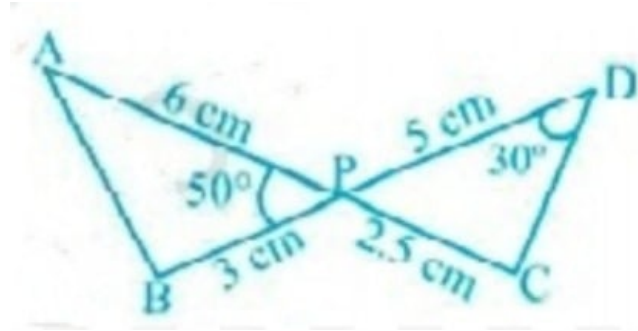
Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 66**

In Fig. below, two line segments AC and BD intersect each other at the point P such that PA = 6 cm, PB = 3 cm, PC = 2.5 cm, PD = 5 cm,  $\angle APB = 50^\circ$  and  $\angle CDP = 30^\circ$  Then,  $\angle PBA$  is equal to



- (A)  $50^\circ$
- (B)  $30^\circ$
- (C)  $60^\circ$
- (D)  $100^\circ$

Status : **Wrong Answered**

Correct Answer : **(D)**

**Q.No. 67**

$n^2 - 1$  is divisible by 8, if n is :

- (A) an integer
- (B) a natural number
- (C) an odd integer
- (D) an even integer

Status : **Correct Answered**

Correct Answer : **(C)**

**Q.No. 68**

The perpendicular bisector of the line segment joining the points A (1, 5) and B (4, 6) cuts the y-axis at

- (A) (0, 13)
- (B) (0, -13)
- (C) (0, 12)
- (D) (13, 0)

Status : **Wrong Answered**

Correct Answer : **(A)**

**Q.No. 69**

The decimal expansion of the rational number  $33/2^{2.5}$  will terminate after

- (A) one decimal place
- (B) two decimal places
- (C) three decimal places
- (D) more than 3 decimal places

Status : **Correct Answered**

Correct Answer : **(B)**

---

**Q.No. 70**

If  $\triangle ABC \sim \triangle EDF$  and  $\triangle ABC$  is not similar to  $\triangle DEF$  then which of the following is not true?

- (A)  $BC \cdot EF = AC \cdot FD$
- (B)  $AB \cdot EF = AC \cdot DE$
- (C)  $BC \cdot DE = AB \cdot EF$
- (D)  $BC \cdot DE = AB \cdot FD$

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 71**

If the point  $C(k,4)$  divides the join of points  $A(2,6)$  and  $B(5,1)$  in the ratio 2:3, then the value of  $k$  is:

- (A) 16
- (B)  $28/5$
- (C)  $16/5$
- (D)  $8/5$

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 72**

In an AP if  $a = -7.2$ ,  $d = 3.6$ ,  $a_n = 7.2$ , then  $n$  is

- (A) 1
- (B) 3
- (C) 4
- (D) 5

Status : **Wrong Answered**

Correct Answer : **(D)**

---

**Q.No. 73**

One ticket is drawn at random from a bag containing tickets numbered 1 to 40. The probability that the selected ticket has a number which is a multiple of 5 is

- (A)  $\frac{1}{5}$
- (B)  $\frac{3}{5}$
- (C)  $\frac{4}{5}$
- (D)  $\frac{1}{3}$

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 74**

Twelve solid spheres of the same size are made by melting a solid metallic cylinder of base diameter 2 cm and height 16 cm. The diameter of each sphere is

- (A) 4 cm
- (B) 3 cm
- (C) 2 cm
- (D) 6 cm

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 75**

A right circular cylinder of radius  $r$  cm and height  $h$  cm (where  $h > 2r$ ) just encloses of sphere of diameter:

- (A)  $r$  cm
- (B)  $2r$  cm
- (C)  $h$  cm
- (D)  $2h$  cm

Status : **Correct Answered**

Correct Answer : **(B)**

---

**Q.No. 76**

At one end A of diameter AB of a circle of radius 5 cm, tangent XAY is drawn to the circle. The length of the chord CD parallel to XY and at a distance 8 cm A is:

- (A) 4 cm
- (B) 5 cm
- (C) 6 cm
- (D) 8 cm

Status : **Wrong Answered**

Correct Answer : **(D)**

---

**Q.No. 77**

Someone is asked to take a number from 1 to 100. The probability that it is a prime is

- (A)  $1/5$
- (B)  $6/25$
- (C)  $1/4$
- (D)  $13/50$

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 78**

If angle between two radii of a circle is  $130^\circ$ , the angle between the tangents at the ends of the radii is:

- (A)  $90^\circ$
- (B)  $50^\circ$
- (C)  $70^\circ$
- (D)  $40^\circ$

Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 79**

If two solid hemispheres of same base radius 'r' are joined together along their bases, then curved surface area of this new solid is:

- (A)  $4\pi r^2$
- (B)  $6\pi r^2$
- (C)  $3\pi r^2$
- (D)  $8\pi r^2$

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 80**

The perpendicular bisector of the line segment joining the points A(1 , 5) and B(4 , 6) cuts the y-axis at :

- (A) (0 , 13)
- (B) (0 , -13)
- (C) (0 , 12)
- (D) (13 , 0)

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 81**

The surface areas of two spheres are in the ratio 16:9. The ratio of their volumes is

- (A) 64:27
- (B) 16:9
- (C) 4:3
- (D) 8:6

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 82**

The quadratic equation  $2x^2 - \sqrt{5}x + 1 = 0$  has

- (A) two distinct real roots
- (B) two equal real roots
- (C) no real roots
- (D) more than 2 real roots

Status : **Correct Answered**

Correct Answer : **(C)**

---

**Q.No. 83**

The diameters of the two circular ends of the bucket are 44 cm and 24 cm. The height of the bucket is 35 cm. The capacity of the bucket is:

- (A) 32.7 litres
- (B) 33.7 litres
- (C) 34.7 litres
- (D) 31.7 litres

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 84**

Two APs have the same common difference. The first term of one of these is -1 and that of the other is - 8. Then the difference between their 4th terms is

- (A) -1
- (B) - 8
- (C) 7
- (D) -9

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 85**

It is given that  $\triangle ABC \sim \triangle PQR$ , with  $(BC/QR=1/3)$ . Then,  $(ar\triangle PQR/ar\triangle BCA)$  is equal to:

- (A) 9
- (B) 3
- (C)  $1/3$
- (D)  $1/9$

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 86**

If  $1/2$  is a root of the equation  $x^2 + kx - 5/4 = 0$ , then the value of k is :

- (A) 2
- (B) -2
- (C)  $1/2$
- (D)  $3/2$

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 87**

A line intersects the y-axis and x-axis at the point P and Q, respectively. If  $(2, -5)$  is the midpoint of PQ, then the coordinate of P and Q are, respectively:

- (A)  $(0, -5)$  and  $(2, 0)$
- (B)  $(0, 10)$  and  $(-4, 0)$
- (C)  $(0, 4)$  and  $(-10, 0)$
- (D)  $(0, -10)$  and  $(4, 0)$

Status : **Correct Answered**

Correct Answer : **(D)**

---

**Q.No. 88**

An event is very unlikely to happen. Its probability is closest to:

- (A) 0.0001
- (B) 0.001
- (C) 0.01
- (D) 0.1

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 89**

It is proposed to build a single circular park equal in area to the sum of areas of two circular parks of diameters 16m and 12m in a locality. The radius of the new park would be:

- (A) 10 m
- (B) 15 m
- (C) 20 m
- (D) 24 m

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 90**

To construct a triangle similar to a given  $\Delta ABC$  with its sides  $(8/5)$  of the corresponding sides of  $\Delta ABC$  draw a ray BX such that  $\angle CBX$  is an acute angle and X is on the opposite side of A with respect to BC. The minimum number of points to be located at equal distances on ray BX is

- (A) 5
- (B) 8
- (C) 13
- (D) 3

Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 91**

If P  $(a/3, 4)$  is the mid-point of the line segment joining the points Q  $(-6, 5)$  and R  $(-2, 3)$ , then the value of a is

- (A) - 4
- (B) - 12
- (C) 12
- (D) - 6

Status : **Wrong Answered**

Correct Answer : **(B)**

---

**Q.No. 92**

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

- (A) 5
- (B) 3
- (C)  $\sqrt{34}$
- (D) 4

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 93**

A girl calculates that the probability of her winning the first prize in a lottery is 0.08. If 6000 tickets are sold, how many tickets has she bought?

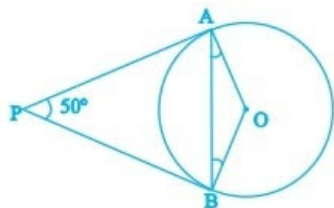
- (A) 40
- (B) 240
- (C) 480
- (D) 750

Status : **Correct Answered**

Correct Answer : **(C)**

**Q.No. 94**

In Fig. if PA and PB are tangents to the circle with centre O such that  $\angle APB = 50^\circ$ , then  $\angle OAB$  is equal to



- (A)  $25^\circ$
- (B)  $30^\circ$
- (C)  $40^\circ$
- (D)  $50^\circ$

Status : **Correct Answered**

Correct Answer : **(A)**

**Q.No. 95**

The radii of the ends of a frustum of a cone of height 'h' cm are  $r_1$  cm and  $r_2$  cm. The volume in  $\text{cm}^3$  of the frustum of the cone is:

- (A)  $\frac{1}{3}\pi h[r_1^2 + r_2^2 + r_1r_2]$
- (B)  $\frac{1}{3}\pi h[r_1^2 + r_2^2 - r_1r_2]$
- (C)  $\frac{1}{3}\pi h[r_1^2 - r_2^2 + r_1r_2]$
- (D)  $\frac{1}{3}\pi h[r_1^2 - r_2^2 - r_1r_2]$

Status : **Wrong Answered**

Correct Answer : **(A)**

**Q.No. 96**

Which of the following is not a quadratic equations?

- (A)  $2(x-1)^2=4x^2-2x+1$
- (B)  $2x-x^2=x^2+5$
- (C)  $x^2+2x+1=(4-x)^2+3$
- (D)  $(x^2+2x)^2 =x^4+3+4x^3$

Status : **Correct Answered**

Correct Answer : **(C)**

---

**Q.No. 97**

If the probability of an event is p, then the probability of its complementary event will be:

- (A) p-1
- (B) p
- (C) 1-p
- (D) 1-(1/p)

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 98**

If  $\triangle ABC$  is right angled at C, then the value of  $\cos (A+B)$  is

- (A) 0
- (B) 1
- (C) 1/2
- (D) 3/2

Status : **Wrong Answered**

Correct Answer : **(A)**

---

**Q.No. 99**

If in triangles ABC and DEF,  $\frac{AB}{DE} = \frac{BC}{FD}$  then they will be similar, when

- (A)  $\angle B = \angle E$
- (B)  $\angle A = \angle D$
- (C)  $\angle B = \angle D$
- (D)  $\angle A = \angle F$

Status : **Wrong Answered**

Correct Answer : **(C)**

---

**Q.No. 100**

Which of the following cannot be a probability of an event?

- (A)  $1/3$
- (B) 0.1
- (C) 3%
- (D)  $17/16$

**Status : Wrong Answered**

**Correct Answer : (D)**

---