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Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

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Actual Answer Key :	Yes
Calculator :	Scientific
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
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Mathematics

Group Number :	1
Group Id :	23109827
Is this Group for Examiner? :	No

Mathematics

Section Id :	23109828
Section Number :	1
Section type :	Online
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Group All Questions :	Yes
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Sub-Section Number :	1
Sub-Section Id :	23109833
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 2310983852 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The values of m and n which make 43m2n5 the least number divisible by 3 are respectively:

Options :

1. ✖ 0, 0

2. ✔ 0, 1

3. ✖ 0, 4

4. ✖ 1, 0

Question Number : 2 Question Id : 2310983853 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The number 2000…….0 has 20 zeros. Find the remainder when this number is divided by 11:

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 3 Question Id : 2310983854 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The number 4.325676767……67……. is equal to:

Options :

1. ✖ 432567/99000

2. ✖ 432567/99900

3. ✖ 428242/99900

4. ✔ 428242/99000

Question Number : 4 Question Id : 2310983855 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The volumes of three vessels are 20 ft3, 28 ft3 and 36 ft3. Water is filled in a drum and poured into the vessels till all the vessels are filled up. What is the volume of the biggest drum such that every time the drum is fully filled with water?

Options :

1. ✖ 1 ft3

2. ✖ 2 ft3

3. ✔ 4 ft3

4. ✖ 6 ft3

Question Number : 5 Question Id : 2310983856 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

Three persons A, B, and C join sports-class on a particular date. After that, A, B, and C attend the class on every third, fourth, and fifth day respectively. On the n-th day all of them again attend the class. Then the value of n is:

Options :

1. ✖ 12

2. ✖ 15

3. ✖ 30

4. ✔ 60

Question Number : 6 Question Id : 2310983857 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

A man works daily from 10 am to 3 pm and completes the work in 20 days. If he takes a lunch break, then the work is finished in 25 days. The duration of the lunch break is:

Options :

1. ✖ 30 minutes

2. ✖ 45 minutes

3. ✔ 60 minutes

4. ✖ 90 minutes

Question Number : 7 Question Id : 2310983858 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

A car travels three equal parts of a distance at speed 30, 40, and 50 km/hr. Its average speed is nearly:

Options :

1. ✖ 40

2. ✔ 38.3

3. ✖ 39.2

4. ✖ 41.4

Question Number : 8 Question Id : 2310983859 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

9 persons do 30% of a work in10 days. How many persons will complete the work in 10 days?

Options :

1. ✖ 90

2. ✖ 45

3. ✔ 30

4. ✖ 20

Question Number : 9 Question Id : 2310983860 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If 2^{777} is divided by 7, the remainder is:

Options :

1. ✖ 0

2. ✔ 1

3. ✖ 2

4. ✖ 5

Question Number : 10 Question Id : 2310983861 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

A car which travels at the speed of 54 Kmph, covers a distance at the average speed of 45 Kmph due to stoppage. The time it stops per hour is:

Options :

1. ✖ 15 minutes

2. ✔ 10 minutes

3. ✖ 8 minutes

4. ✖ 7 minutes

Question Number : 11 Question Id : 2310983862 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The compound interests of an amount for two years at the rate of 10% compounded half early is ₹ 165 more than the compound interest compounded annually. The principal amount is:

Options :

1. ✖ ₹ 20,000

2. ✖ ₹ 25,000

3. ✔ ₹ 30,000

4. ✖ ₹ 35,000

Question Number : 12 Question Id : 2310983863 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

Instead of giving a discount of 20%, a shop-keeper gives two successive discounts of 10% each. In such manner, the difference (in %) would be:

Options :

1. ✔ 1%

2. ✖ 2%

3. ✖ 2.5%

4. ✖ 10%

Question Number : 13 Question Id : 2310983864 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

There are two containers, first of them contains mixture of milk and water in the ratio 5:3, and the second contains mixture of milk and water in the ratio 4:7. How many liters of mixture from the second container should be mixed with 4 liters of mixture from the first container so that quantities of milk and water are equal in the resulting mixture?

Options :

1. ✖ 8/3 liters

2. ✔ 11/3 liters

3. ✖ 15/7 liters

4. ✖ 16/7 liters

Question Number : 14 Question Id : 2310983865 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

When a number is divided by 75, it leaves a remainder 52. If it is divided by 15, the remainder would be:

Options :

1. ✖ 6

2. ✔ 7

3. ✖ 8

4. ✖ 9

Question Number : 15 Question Id : 2310983866 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

The value of $1/(m^2+m+1) - 1/(m^2-m+1) + 2m/(m^4+m^2+1)$ is:

Options :

1. ✖ $1/m$

2. ✖ $1/m^2$

3. ✖ $1/m^4$

4. ✔ 0

Question Number : 16 Question Id : 2310983867 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The minimum value of $a^2 + 8a + 20$ is:

Options :

1. ✖ 1

2. ✔ 4

3. ✖ 9

4. ✖ 16

Question Number : 17 Question Id : 2310983868 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $\alpha = [-7 + \sqrt{(49 - 4\times1\times11)}] / 2$, and $\beta = [-7 - \sqrt{(49 - 4\times1\times11)}] / 2$, then $\alpha^2 + \beta^2$ is equal to:

Options :

1. ✖ $\sqrt{5+1}$

2. ✖ $-\sqrt{5+1}$

3. ✔ 27

4. ✖ 29

Question Number : 18 Question Id : 2310983869 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If sum and product of two numbers are 52 and 651 respectively, then their difference is:

Options :

1. ✖ 14

2. ✔ 10

3. ✖ 8

4. ✖ 6

Question Number : 19 Question Id : 2310983870 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $9a^2 + 1/a^2 = 3$, then the value of $27a^3 + 1/a^3$ is:

Options :

1. ✔ 0

2. ✖ 9

3. ✖ 27

4. ✖ 12

Question Number : 20 Question Id : 2310983871 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The value of $[1+x^{(b-a)}+x^{(c-a)}+x^{(d-a)}]^{-1}+[1+x\,a^{(a-b)}+x^{(c-b)}+x^{(d-b)}]^{-1}+$ $[1+x^{(a-c)}+x^{(b-c)}+x^{(d-c)}]^{-1}+[1+x^{(a-d)}+x^{(b-d)}+x^{(c-d)}]^{-1}$ is:

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 0

2. 1

3. $\frac{1}{4}$

4. 4

Question Number : 21 Question Id : 2310983872 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

$a^2-5a+1=0$, the value of a^2+1/a^2 is:

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 125

2. 110

3. 100

4. 45

Question Number : 22 Question Id : 2310983873 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $a^8+\frac{1}{a^8}=23$, then the value of a^6+1/a^6 is:

Options :

1. ✖ $\sqrt{23}$

2. ✖ $3\sqrt{23}$

3. ✖ $2\sqrt{7}$

4. ✔ $4\sqrt{7}$

Question Number : 23 Question Id : 2310983874 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $p = a(b - c)$, q=b(c-a), $q = b(c - a)$ and $r = c(a - b)$ then the value of $(p^3 + q^3 + r^3)/pqr$ is:

Options :

1. ✖ 1

2. ✖ 2

3. ✔ 3

4. ✖ 4

Question Number : 24 Question Id : 2310983875 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $[\sqrt{(x+3)} + \sqrt{(x-3)}] / [\sqrt{(x+3)} - \sqrt{(x-3)}] = 3$, then the value of x is:

Options :

1. ✖ 4

2. ✔ 5

3. ✖ 6

4. ✖ 9

Question Number : 25 Question Id : 2310983876 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the roots of the equation $(m^2+9)x^2 + 15x + 6m = 0$ are reciprocal of each other, then the value of m:

Options :

1. ✖ 1

2. ✖ 2

3. ✔ 3

4. ✖ 4

Question Number : 26 Question Id : 2310983877 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the system of equations $(k^2+1)x + ky + 2 = 0$ and $2x + y + 4 = 0$ has no solution, then the value of k is:

Options :

1. ✔ 1

2. ✖ 2

3. ✖ 3

4. ✖ 4

Question Number : 27 Question Id : 2310983878 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $\log_3 (134-x^3) = 2$, then the value of x is:

Options :

1. ✖ 3

2. ✔ 5

3. ✖ 9

4. ✖ 16

Question Number : 28 Question Id : 2310983879 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The value of $\cos^2 68° - \sin^2 22°$ is:

Options :

1. ✖ $\sqrt{2}$

2. ✖ $\sqrt{3}$

3. ✔ 0

4. ✖ 1

Question Number : 29 Question Id : 2310983880 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The wheel of a bicycle of radius 30 cm. rotates 3 radians/sec. the speed of the bicycle is:

Options :

1. ✔ 90 cm/sec

2. ✖ 60 cm/sec

3. ✖ 30 cm/sec

4. ✖ 15 cm/sec

Question Number : 30 Question Id : 2310983881 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What is the value of $[2\cos 60° \sin 60°] / [2\cos^2 60° - 1]$?

Options :

1. ✔ $-\sqrt{3}$

2. ✖ $\sqrt{3}$

3. ✖ $1/\sqrt{3}$

4. ✖ $-1/\sqrt{3}$

Question Number : 31 Question Id : 2310983882 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

At a point of distant 15 feet from a house, the house and a flagstaff above it subtend angles of 45 and 15 degrees respectively. The length of the flagstaff is:

Options :

1. ✖ $15(\sqrt{3}+1)$

2. ✔ $15(\sqrt{3}-1)$

3. ✖ $15(\sqrt{2}+1)$

4. ✖ $15(\sqrt{2}-1)$

Question Number : 32 Question Id : 2310983883 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The chord of a circle of length equal to $\sqrt{2}$ times its radius subtends at the centre an angle whose value in radian is:

Options :

1. ✖ $\pi/4$

2. ✖ $\pi/3$

3. ✔ $\pi/2$

4. ✖ $2\pi/3$

Question Number : 33 Question Id : 2310983884 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If $\tan A + \cot A = 2$, then $\tan^6 A + \cot^6 A$ is:

Options :

1. ✖ 12

2. ✖ 6

3. ✖ 4

4. ✔ 2

Question Number : 34 Question Id : 2310983885 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If $A+B+C = \pi$, then $\sin(A+B) + \sin(B+C) + \sin(C+A)$ is equal to:

Options :

1. ✔ $\sin A+\sin B+\sin C$

2. ✖ $\sin A \sin B \sin C$

3. ✖ $\cos A+\cos B+\cos C$

4. ✖ $\cos A \cos B \cos C$

Question Number : 35 Question Id : 2310983886 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

A man finds the angle of elevation of a cliff to be 45 degree. When he goes 2 km. towards the cliff on an inclined path making angle 30 degree with horizon, the angle of elevation of the cliff becomes 60 degree. The height of the cliff is:

Options :

1. ✖ $\sqrt{3}$

2. ✔ $\sqrt{3}+1$

3. ✖ $\sqrt{3}-1$

4. ✖ $\sqrt{3}+2$

Question Number : 36 Question Id : 2310983887 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If $(m^2 - n^2) \sin x + 2mn \cos x = (m^2 + n^2)$, then the values of sinx and cosx are respectively:

Options :

1. ✔ $(m^2 - n^2)/(m^2+n^2)$ and $2mn/(m^2+n^2)$

2. ✖ $(m^2+n^2)/(m^2-n^2)$ and $2mn/(m^2-n^2)$

3. ✖ $2mn/(m^2+n^2)$ and $(m^2-n^2)/(m^2+n^2)$

4. ✖ $m^2/(m^2+n^2)$ and n^2 (m^2+n^2)

Question Number : 37 Question Id : 2310983888 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The value of $\text{cosec}x\ [(1+\cos x)/\sin x + \sin x/(1+\cos x)] - 2\cot^2 x$ is:

Options :

1. ✖ 0

2. ✖ 1

3. ✔ 2

4. ✖ 4

Question Number : 38 Question Id : 2310983889 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the circumcenter of a triangle lies on a side of the triangle then which of the following is true:

Options :

1. ✖ There is no such triangle

2. ✖ The triangle must be acute angled

3. ✖ The triangle must be obtuse angled

4. ✔ The triangle must be right angled

Question Number : 39 Question Id : 2310983890 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the orthocenter of a triangle lies outside the triangle then which of the following is true:

Options :

1. ✖ There is no such triangle

2. ✖ The triangle must be acute angled

3. ✔ The triangle must be obtuse angled

4. ✖ The triangle must be right angled

Question Number : 40 Question Id : 2310983891 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the sides of a triangle are 3, 4, and 5, then the circumradius of the triangle is:

Options :

1. ✖ 4.5

2. ✖ 3.5

3. ✔ 2.5

4. ✖ 1.5

Question Number : 41 Question Id : 2310983892 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

A and B are centers of two circles of radii 10 and 5 respectively. AB = 30. Two common tangents to the circles meet within AB at P. Then AP is equal to:

Options :

1. ✖ 10

2. ✖ 15

3. ✔ 20

4. ✖ 25

Question Number : 42 Question Id : 2310983893 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

There are two circular discs with centers A and B and radii 10 and 5 respectively. AB = 20. Two common tangents of the circles cut AB externally at C. AC is equal to:

Options :

1. ✖ 30

2. ✖ 35

3. ✔ 40

4. ✖ 45

Question Number : 43 Question Id : 2310983894 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In a regular polygon, the interior angle is 4 times the exterior angles. Then the number of sides is:

Options :

1. ✖ 4

2. ✖ 6

3. ✖ 8

4. ✔ 10

Question Number : 44 Question Id : 2310983895 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The field of a stadium is formed of a rectangle of dimension 200 meter and 140 meters with semi-circles scribed on the both sides of length 140 meter. The area of the field is approximately:

Options :

1. ✖ 42400 sq. meter

2. ✖ 43200 sq. meter

3. ✔ 43400 sq. meter

4. ✖ 44200 sq. meter

Question Number : 45 Question Id : 2310983896 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

O is the incenter of the triangle ABC, where AB=2, BC=3, CA=4. The ratio of the area of triangles OAB, OBC, and OCA is:

Options :

1. ✔ 2:3:4

2. ✖ 3:4:2

3. ✖ 4:2:3

4. ✖ 3:2:4

Question Number : 46 Question Id : 2310983897 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

ABC is triangle. D and E are points on AB and AC respectively such that AD:DB = AE:EC=1:2. Then area of ADE : area of ABC is:

Options :

1. ✖ 1:2

2. ✖ 1:3

3. ✔ 1:9

4. ✖ 2:9

Question Number : 47 Question Id : 2310983898 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

A cube of side 12 cm is divided into cubes of side 4cm. The increment in the surface area due to such division is:

Options :

1. ✖ 1432 sq.cm

2. ✔ 1728 sq.cm

3. ✖ 1824 sq.cm

4. ✖ 1916 sq.cm

Question Number : 48 Question Id : 2310983899 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

Three circles of radius 7 cm touch each other at P, Q, and R. The area enclosed by the arcs PQ, QR, and RP is approximately:

Options :

1. ✖ 14.868

2. ✖ 10.868

3. ✔ 7.868

4. ✖ 3.434

Question Number : 49 Question Id : 2310983900 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

The circumference of the front wheel and rear wheel of a cart are 25 feet and 30 feet respectively. After 1 minute, the difference of revolutions made by the wheels is 4. The speed of the cart is:

Options :

1. ✖ 5 feet/sec

2. ✔ 10 feet/sec

3. ✖ 12 feet/sec

4. ✖ 15 feet/sec

Question Number : 50 Question Id : 2310983901 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

The cost of metal-plating the circular base of a solid hemisphere is ₹ 10000. The cost of plating its whole surface area is:

Options :

1. ✖ ₹ 20,000

2. ✔ ₹ 30,000

3. ✖ ₹ 32,450

4. ✖ ₹ 32,460

Question Number : 51 Question Id : 2310983902 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The side of an equilateral triangle is 42cm. the area between its circumcircle and incircle is:

Options :

1. ✔ 1386 sq.cm

2. ✖ 1432 sq.cm

3. ✖ 1456 sq.cm

4. ✖ 1572 sq.cm

Question Number : 52 Question Id : 2310983903 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If a sphere is cut into two hemispheres, and each hemisphere is further cut into two halves by a plane perpendicular to its circular base, then the total surface area of all the parts of the sphere is:

Options :

1. ✖ Equal to the surface area of the sphere

2. ✔ Twice the surface area of the sphere

3. ✖ Thrice the surface area of the sphere

4. ✖ Four times the surface area of the sphere

Question Number : 53 Question Id : 2310983904 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

Three places A, B, and C are distant 6 Km. from each other. A circular road of width 28 meter is to be constructed outside the triangle ABC such that A, B, and C lie beside the road. If the cost of construction is ₹ 100 per sq. meter, then the cost of construction of the road is:

Options :

1. ✖ ₹ 51212800

2. ✔ ₹ 61212800

3. ✖ ₹ 71212800

4. ✖ ₹ 81212800

Question Number : 54 Question Id : 2310983905 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The radius of the internal surface of a hemispherical bowl is 10 cm. and its width is 1cm., then its total surface area is:

Options :

1. ✖ 363π sq.cm

2. ✔ 463π sq.cm

3. ✖ 563π sq.cm

4. ✖ 663π sq.cm

Question Number : 55 Question Id : 2310983906 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The height of a conical vessel is 24cm. and radius of the circular open base is 6cm. With vertex downwards and circular base up, the vessel contains water upto the height 4cm.(measured from the vertex). How much water should be poured into the vessel so that the height of the water is 8cm.?

Options :

1. ✖ 24 π/3 cm^3

2. ✖ 26 π/3 cm^3

3. ✔ 28 π/3 cm^3

4. ✖ 30 π/3 cm^3

Question Number : 56 Question Id : 2310983907 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In a data 1, 2, 3, 4, and 5 have frequencies 1, 2, 3, 4, and 5 respectively. The mean is approximately:

Options :

1. ✖ 11

2. ✖ 3

3. ✖ 3.25

4. ✔ 3.67

Question Number : 57 Question Id : 2310983908 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The mean of 10 numbers is calculated to be 20. Later it was found that during calculation, 32 was wrongly read as 23. The correct mean is:

Note: For this question, discrepancy is found in question/answer.
So,this question is ignored for all candidates.

Options :

1. 19

2. 19.1

3. 19.2

4. 19.3

Question Number : 58 Question Id : 2310983909 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

Consistency of a batsman in cricket may be measured by taking the scores and calculating its:

Options :

1. ✖ Mean

2. ✖ Median

3. ✖ Mode

4. ✔ Standard deviation.

Question Number : 59 Question Id : 2310983910 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In a π-chart, the angles of the sectors of the circle are 30°, 45°, 60°, 90°, 120°, and 15°. These represent respectively the monthly expenditure in a family in house rent, food, conveyance, education, saving, and entertainment. If the total monthly expenditure is ₹ 300000, then the amount kept in saving is:

Options :

1. ✔ ₹100000

2. ✖ ₹120000

3. ✖ ₹90000

4. ✖ ₹80000

Question Number : 60 Question Id : 2310983911 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In a π-chart, the angles of the sectors of the circle are 30°, 45°, 60°, 90°, 120°, and 15°. These represent respectively the monthly expenditure in a family in house rent, food, conveyance, education, saving, and entertainment.

According to the above π-chart, the sum of amount spent in food and conveyance is:

Note: For this question, discrepancy is found in question/answer.

So,this question is ignored for all candidates.

Options :

1. ₹ 90400

2. ₹ 88600

3. ₹ 87500

4. ₹ 85700

Question Number : 61 Question Id : 2310983912 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In a π-chart, the angles of the sectors of the circle are 30°, 45°, 60°, 90°, 120°, and 15°. These represent respectively the monthly expenditure in a family in house rent, food, conveyance, education, saving, and entertainment.

According to the above π-chart, what percentage of the amount spent on food is spent in excess on conveyance?

Note: For this question, discrepancy is found in question/answer.
So,this question is ignored for all candidates.

Options :

1. 15%

2. 30%

3. 33.3%

4. 36%

Question Number : 62 Question Id : 2310983913 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In a π-chart, the angles of the sectors of the circle are 30°, 45°, 60°, 90°, 120°, and 15°. These represent respectively the monthly expenditure in a family in house rent, food, conveyance, education, saving, and entertainment

The annual miscellaneous expenditure is ₹ 300000 to be spent from the saving. With reference to the above π-chart, if this information is to be shown in the chart with addition of an extra sector in the circle and changing the angle of the sector corresponding to saving, the angle of the sector is:

Note: For this question, discrepancy is found in question/answer.
So,this question is ignored for all candidates.

Options :

1. 15°

2. 30°

3. 45°

4. 60°

Question Number : 63 Question Id : 2310983914 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

Let P(A) denote probability of event A. If P(A) =0.7, P(B) = 0.8, and P(A&B) = 0.6, then probability that none of A and B happens is:

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 0.1

2. 0.2

3. 0.3

4. 0.4

Question Number : 64 Question Id : 2310983915 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The means of three groups of data having respective number of observations as 10, 20, and 30, are 5, 8, and 9. The mean of the combined data is:

Options :

1. ✖ 6

2. ✖ 6.8

3. ✔ 8

4. ✖ 8.5

Question Number : 65 Question Id : 2310983916 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

Three of five numbers are 1, 2, and 5. The mean and standard deviation of the five numbers are respectively 3 and $\sqrt{2}$. The two unknown values are:

Options :

1. ✔ 3 and 4

2. ✖ 2 and 5

3. ✖ 1 and 6

4. ✖ 4 and 6

Question Number : 66 Question Id : 2310983917 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The smallest number which gives a perfect square when multiplied by 392, is:

Options :

1. ✖ 7

2. ✖ 4

3. ✔ 2

4. ✖ 14

Question Number : 67 Question Id : 2310983918 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The number of factors of 180 is:

Options :

1. ✖ 4

2. ✖ 8

3. ✖ 9

4. ✔ 18

Question Number : 68 Question Id : 2310983919 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What principal will amount to ₹15,000 at 10% p.a. in 5 years?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. ₹10,000

2. ₹8,700

3. ₹10,500

4. ₹7,500

Question Number : 69 Question Id : 2310983920 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The number 231 has:

Options :

1. ✔ three prime factors

2. ✖ two prime factors

3. ✖ five prime factors

4. ✖ no prime factors

Question Number : 70 Question Id : 2310983921 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

$\frac{27^3-18^3}{27^2-18^2} \times \frac{15}{9^3+2\times3^5+4\times9^2}$ is equal to:

Options :

1. ✖ 3

2. ✔ $\frac{1}{3}$

3. ✖ 2

4. ✖ $\frac{1}{2}$

Question Number : 71 Question Id : 2310983922 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What is the value of $0.2353535\ldots$ in terms of $\frac{m}{n}$, where n is not equal to zero?

Options :

1. ✔ $\frac{233}{990}$

2. ✖ $\frac{333}{990}$

3. ✖ $\frac{223}{990}$

4. ✖ $\frac{222}{990}$

Question Number : 72 Question Id : 2310983923 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $a+b+c=0$ then $\frac{a^2}{bc}+\frac{b^2}{ca}+\frac{c^2}{ab}$ is equal to:

Options :

1. ✔ 3

2. ✖ 2

3. ✖ 1

4. ✖ 0

Question Number : 73 Question Id : 2310983924 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If A completes a task in 10 days and B completes the same task in 15 days, then in how many days can A and B complete this task working together?

Options :

1. ✖ 4 days

2. ✖ 5 days

3. ✔ 6 days

4. ✖ 3 days

Question Number : 74 Question Id : 2310983925 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $\frac{8\times4}{\sqrt{1024}} = \frac{\sqrt{625}}{\sqrt{x}}$, then what is the value of x?

Options :

1. ✖ 25

2. ✔ 625

3. ✖ 1025

4. ✖ 1250

Question Number : 75 Question Id : 2310983926 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $x : y = 4 : 3$, then $\frac{5y^2-2x^2}{4y^2-3x^2}$ is equal to:

Options :

1. ✖ $\frac{13}{12}$

2. ✔ $\frac{-13}{12}$

3. ✖ $\frac{12}{13}$

4. ✖ $\frac{-12}{13}$

Question Number : 76 Question Id : 2310983927 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

A train is travelling at a speed of 45 km/h. How many seconds will it take to cover a distance of 800 m?

Options :

1. ✖ 8 sec

2. ✖ 32 sec

3. ✖ 48 sec

4. ✔ 64 sec.

Question Number : 77 Question Id : 2310983928 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

$756 \div 28 \times \left\{25 + \frac{11}{17 - \frac{33}{2}} \div 11\right\}$ is equal to:

Options :

1. ✔ 729

2. ✖ 676

3. ✖ 625

4. ✖ 576

Question Number : 78 Question Id : 2310983929 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $2^{n+1} - 2^{n-1} - 6 = 0$, then n^{n-1} is equal to:

Options :

1. ✖ 0

2. ✖ 1

3. ✔ 2

4. ✖ 4

Question Number : 79 Question Id : 2310983930 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

Sita and Geeta open a shop by investing ₹36,000 and ₹63,000, respectively. If the annual profit from that shop is ₹5,500 then the shares of Sita and Geeta, respectively, are:

Options :

1. ✖ ₹2,500 and ₹3,000

2. ✔ ₹2,000 and ₹3,500

3. ✖ ₹1,500 and ₹4,000

4. ✖ ₹1,800 and ₹3,700

Question Number : 80 Question Id : 2310983931 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What is the difference between simple and compound interest compounded annually of amount ₹4,000 after two years at interest rate of 5% per annum?

Options :

1. ✔ ₹10

2. ✖ ₹15

3. ✖ ₹18

4. ✖ ₹20

Question Number : 81 Question Id : 2310983932 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the sum and product two numbers are 52 and 651, respectively, then the smaller number is:

Options :

1. ✖ 11

2. ✖ 20

3. ✔ 21

4. ✖ 31

Question Number : 82 Question Id : 2310983933 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If a number 2^{2019} is divided by 7, then the reminder is:

Options :

1. ✖ 0

2. ✔ 1

3. ✖ 2

4. ✖ 3

Question Number : 83 Question Id : 2310983934 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What is the sum of the LCM and HCF of two numbers 110 and 210?

Options :

1. ✖ 2300

2. ✖ 2310

3. ✔ 2320

4. ✖ 2330

Question Number : 84 Question Id : 2310983935 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The decimal expansion of the rational number $\frac{33}{2^2 \times 5}$ will terminate after:

Options :

1. ✖ one decimal places

2. ✔ two decimal places

3. ✖ three decimal places

4. ✖ four decimal places

Question Number : 85 Question Id : 2310983936 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If two numbers a and b are written as $a = x^3y^2$ and $b = xy^3$; where x and y are prime numbers then the HCF of a and b is:

Options :

1. ✔ xy^2

2. ✖ xy^3

3. ✖ x^3y^3

4. ✖ x^2y^2

Question Number : 86 Question Id : 2310983937 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What is the last digit of 3^{2020}, after simplification?

Options :

1. ✔ 1

2. ✖ 2

3. ✖ 3

4. ✖ 4

Question Number : 87 Question Id : 2310983938 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the roots of the equation $x^2 + 8x + 15 = 0$ are α and β, then $\alpha^3 + \beta^3$ is equal to:

Options :

1. ✖ -105

2. ✖ -125

3. ✖ -148

4. ✔ -152

Question Number : 88 Question Id : 2310983939 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What is the value of $\frac{x^2-9}{x^3-27} \div \frac{1}{x^2}$?

Options :

1. ✖ x+3

2. ✖ x-3

3. ✔ $\frac{x^3+3x^2}{x^2+3x+9}$

4. ✖ $\frac{x^3-3x}{x^2+3x+9}$

Question Number : 89 Question Id : 2310983940 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $A = \{1,2,3,4\}$, then the cardinality of power set of A is:

Options :

1. ✖ 12

2. ✖ 14

3. ✖ 15

4. ✔ 16

Question Number : 90 Question Id : 2310983941 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the polynomial $f(x) = 14x^3 - 5x^2 + 9x - 1$ is divided by the polynomial $g(x) = 2x - 1$ then the reminder is:

Options :

1. ✖ 0

2. ✖ 1

3. ✖ 3

4. ✔ 4

Question Number : 91 Question Id : 2310983942 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the system of the equations $kx - 5y = 2$ and $6x + 2y = 7$ has no solution, then k is equal to:

Options :

1. ✖ -10

2. ✔ -15

3. ✖ -6

4. ✖ -5

Question Number : 92 Question Id : 2310983943 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the sum and product of the roots of the equation $px^2 + 6x - 6 = 0$ are equal, then p is equal to:

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. $\frac{3}{2}$

2. $-\frac{3}{2}$

3. $\frac{2}{3}$

4. $\frac{-2}{3}$

Question Number : 93 Question Id : 2310983944 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

A number consists two digits whose sum is 9. If 27 is subtracted from the number, the difference is the number formed by reversing the digits of the original number. The original number is:

Options :

1. ✖ 36

2. ✔ 63

3. ✖ 54

4. ✖ 45

Question Number : 94 Question Id : 2310983945 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If α and β are roots of the quadratic equation $ax^2 + bx + b = 0$, then $\sqrt{\frac{\alpha}{\beta}} + \sqrt{\frac{\beta}{\alpha}} + \sqrt{\frac{b}{a}}$ is equal to:

Options :

1. ✖ -1

2. ✖ 1

3. ✔ 0

4. ✖ 2

Question Number : 95 Question Id : 2310983946 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $\left(\frac{5}{3}\right)^9 \times \left(\frac{5}{3}\right)^{-11} = \left(\frac{5}{3}\right)^x$, then x is equal to:

Options :

1. ✖ 2

2. ✖ 1

3. ✖ -1

4. ✔ -2

Question Number : 96 Question Id : 2310983947 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

After 12 years, Ram shall be 3 times of his daughter's age. If the sum of Ram and his daughter's ages is 40 years now, then the present age of Ram is:

Options :

1. ✖ 32

2. ✔ 36

3. ✖ 38

4. ✖ 30

Question Number : 97 Question Id : 2310983948 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

What is the value of $\frac{2\sin(30^o)\times\cos(30^o)}{2\sin^2(30^o)-1}$?

Options :

1. ✔ $-\sqrt{3}$

2. ✖ $\sqrt{3}$

3. ✖ $\frac{-1}{\sqrt{3}}$

4. ✖ $\frac{1}{\sqrt{3}}$

Question Number : 98 Question Id : 2310983949 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

If $x = a\sin(\theta)\ \&\ y = b\tan(\theta)$ then $\frac{a^2}{x^2} - \frac{b^2}{y^2} = ?$

Options :

1. ✔ 1

2. ✖ -1

3. ✖ $a^2 + b^2$

4. ✖ 0

Question Number : 99 Question Id : 2310983950 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

What is the value of $cos^2(67^0) - sin^2(23^0)$?

Options :

1. ✖ 1

2. ✖ -1

3. ✔ 0

4. ✖ 2

Question Number : 100 Question Id : 2310983951 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

The value of $\sin(18^\circ) + \cos(36^\circ)$ is:

Options :

1. ✔ $\frac{\sqrt{5}}{2}$

2. ✖ $-\frac{\sqrt{5}}{2}$

3. ✖ $\frac{2}{\sqrt{5}}$

4. ✖ $\frac{-2}{\sqrt{5}}$

Question Number : 101 Question Id : 2310983952 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $\frac{sin^2(\theta)}{1-sin^2(\theta)} = 1$, then the value of θ is:

Options :

1. ✖ 30^0

2. ✔ 45^0

3. ✖ 60^0

4. ✖ 75^0

Question Number : 102 Question Id : 2310983953 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $2\cos(\theta) = x + \frac{1}{x}$, then the value of $2\cos(3\theta)$ is:

Options :

1. ✖ $x^3 - \frac{1}{x^3}$

2. ✔ $x^3 + \frac{1}{x^3}$

3. ✖ $x + \frac{1}{x}$

4. ✖ $x - \frac{1}{x}$

Question Number : 103 Question Id : 2310983954 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The angle of elevation of the top of a tower from a point on the ground, which 30 m away from the foot of the tower, is 60°. The height of tower is:

Options :

1. ✖ 30 m

2. ✖ $\frac{30}{\sqrt{3}}$ m

3. ✔ $30\sqrt{3}$ m

4. ✖ 60 m

Question Number : 104 Question Id : 2310983955 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $a = \sec(\emptyset) + \tan(\emptyset)$, then $\frac{a^2-1}{a^2+1}$ is equal to:

Options :

1. ✔ $\sin(\emptyset)$

2. ✖ $\cos(\emptyset)$

3. ✖ $\tan(\emptyset)$

4. ✖ $\sec(\emptyset)$

Question Number : 105 Question Id : 2310983956 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The value of $\tan(1^\circ) \times \tan(2^\circ) \times \tan(3) \times \ldots \times \tan(100^\circ)$ is:

Options :

1. ✖ 0

2. ✖ 1

3. ✖ -1

4. ✔ ∞

Question Number : 106 Question Id : 2310983957 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What is the value of $x^2 + y^2 + z^2$, if $x = r\sin(\theta)cos(\varphi), y = r\sin(\theta)sin(\varphi)$ and $z = r\cos(\varphi)$?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. r

2. r^2

3. r^3

4. 1

Question Number : 107 Question Id : 2310983958 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

What is the value of $\sin(20^\circ) \times \sin(40^\circ) \times \sin(60^\circ) \times \sin(80^\circ)$?

Options :

1. ✖ $\frac{1}{16}$

2. ✖ $\frac{2}{16}$

3. ✔ $\frac{3}{16}$

4. ✖ $\frac{\sqrt{3}}{16}$

Question Number : 108 Question Id : 2310983959 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If $\frac{x\, cosec^2(30^\circ)\, sec^2(45^\circ)}{8\, cos^2(45^\circ)\, sin^2(60^\circ)} = tan^2(60^\circ) - tan^2(30^\circ)$, then x is equal to:

Options :

1. ✔ 1

2. ✖ 2

3. ✖ $\frac{1}{2}$

4. ✖ $\frac{1}{\sqrt{2}}$

Question Number : 109 Question Id : 2310983960 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

A ladder 15 m long just reaches the top of a vertical wall. If the ladder makes an angle of 30° with the wall, then the height of the wall is:

Options :

1. ✖ 7.5 m

2. ✖ 15 m

3. ✖ $15\sqrt{3}$ m

4. ✔ $7.5\sqrt{3}$ m

Question Number : 110 Question Id : 2310983961 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the ratio of two sides of a parallelogram is 3 : 5, and its perimeter is 48 m, then the sides of the parallelogram are:

Options :

1. ✖ 6 m and 10 m

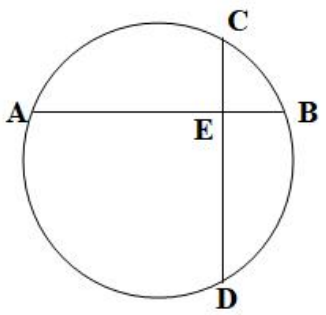
2. ✔ 9 m and 15 m

3. ✖ 12 m and 20 m

4. ✖ 15 m and 25 m

Question Number : 111 Question Id : 2310983962 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In a circle, chords AB and CD intersect perpendicular at point E. If AE = 3.5 cm, DE = 7 cm and EC = 2.5 cm, then chord AB is equal to:



Options :

1. ✖ 7.50 cm

2. ✖ 8.05 cm

3. ✔ 8.50 cm

4. ✖ 6.00 cm

Question Number : 112 Question Id : 2310983963 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the radius of a circle is 5 cm and shortest distance between centre of the circle a chord is 4 cm, then the length of the chord is:

Options :

1. ✖ 3 cm

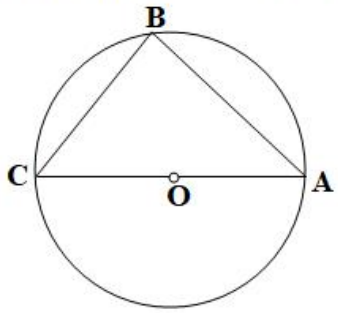
2. ✖ 4 cm

3. ✖ 5 cm

4. ✔ 6 cm

Question Number : 113 Question Id : 2310983964 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

In the given figure, $\angle ABC$ is equal to:



Options :

1. ✖ 180°

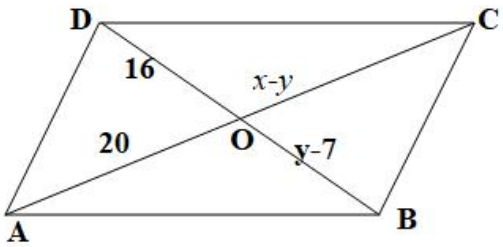
2. ✔ 90°

3. ✖ 60°

4. ✖ 80°

Question Number : 114 Question Id : 2310983965 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

In the given figure, ABCD is a parallelogram and AO = 20 cm, OC = x − y, DO = 16 cm and OB = y − 7 cm. The values of x and y are:



Options :

1. ✖ 34 cm and 14 cm

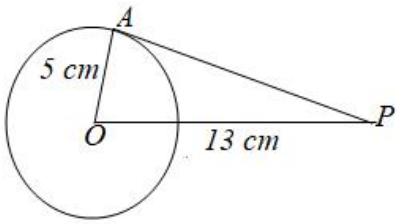
2. ✖ 30 cm and 140 cm

3. ✖ 38 cm and 18 cm

4. ✔ 43 cm and 23 cm

Question Number : 115 Question Id : 2310983966 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

In the given figure, the radius of the circle is 5 cm, and OP = 13 cm. What is the length of the tangent line AP?



Options :

1. ✖ 5 cm

2. ✔ 12 cm

3. ✖ 13 cm

4. ✖ 15 cm

Question Number : 116 Question Id : 2310983967 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If a line $y = mx + c$ passes through two points (3, 7) and (2, 6), then the values of m and c are:

Options :

1. ✔ 1 and 4

2. ✖ 4 and 4

3. ✖ 1 and 1

4. ✖ 4 and 3

Question Number : 117 Question Id : 2310983968 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If line $x - y + 1 = 0$ makes an angle with the x-axis in the positive direction, then it is:

Options :

1. ✖ 30°

2. ✔ 45°

3. ✖ 90°

4. ✖ 60°

Question Number : 118 Question Id : 2310983969 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What is the equation of a line that passes through a point (4, 5) and intersects equally on x and y axis?

Options :

1. ✖ $x+y=4$

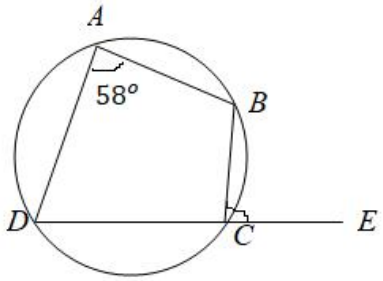
2. ✖ $x+y=5$

3. ✔ $x+y=9$

4. ✖ $x-y=9$

Question Number : 119 Question Id : 2310983970 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In the above figure, what is the value of ∠BCE?



Options :

1. ✖ 122°

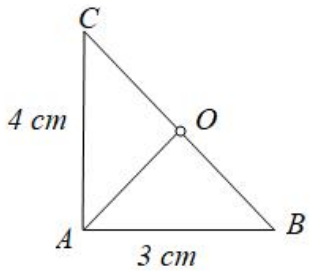
2. ✖ 116°

3. ✔ 58°

4. ✖ 90°

Question Number : 120 Question Id : 2310983971 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In the given figure, if O be a middle point of diagonal, then AO is equal to:



Options :

1. ✖ 5 cm

2. ✖ 4cm

3. ✖ 3 cm

4. ✔ 2.5 cm

Question Number : 121 Question Id : 2310983972 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the two diameters AB and CD of a circle intersect at a right angle and join A to D and C; B to C and D, then the generated shape will be a:

Options :

1. ✖ rectangle

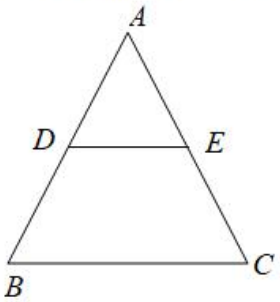
2. ✔ square

3. ✖ parallelogram

4. ✖ rhombus

Question Number : 122 Question Id : 2310983973 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $BC \parallel DE$ and $DE = 3$ cm, $BC = 9$ cm and $AD = 2$ cm, then DB is equal to:



Options :

1. ✖ 6 cm

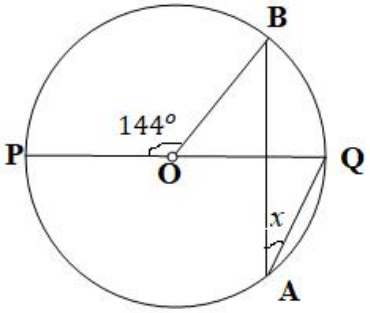
2. ✖ 5 cm

3. ✔ 4 cm

4. ✖ 3 cm

Question Number : 123 Question Id : 2310983974 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In the given figure, POQ is diameter of circle. The value of x is:



Options :

1. ✖ 14°

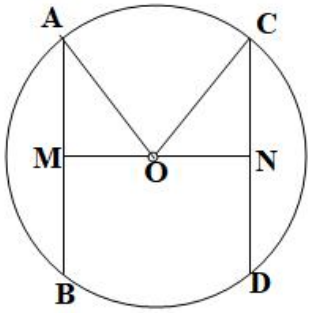
2. ✔ 18°

3. ✖ 28°

4. ✖ 30°

Question Number : 124 Question Id : 2310983975 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

In the given figure, the radius of circle is 10 cm; chords AB and CD are 12 and 16 cm, respectively. What is length of MN?



Options :

1. ✖ 6 cm

2. ✖ 8 cm

3. ✖ 10 cm

4. ✔ 14 cm

Question Number : 125 Question Id : 2310983976 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the sides of a triangle are 3 cm, 4 cm and 5 cm, then the area of the triangle is:

Options :

1. ✖ 4 cm

2. ✖ 5 cm

3. ✖ 3 cm

4. ✔ 6 cm

Question Number : 126 Question Id : 2310983977 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

What is the diagonal of a cuboid, if the edges of the cuboid are 3 cm, 4 cm and 5 cm?

Options :

1. ✖ 5 cm

2. ✔ $5\sqrt{2}$ cm

3. ✖ 10 cm

4. ✖ $10\sqrt{2}$ cm

Question Number : 127 Question Id : 2310983978 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If the radius of a sphere is 3 cm, then the total curve surface area of each hemisphere is:

Options :

1. ✖ $9\pi\ cm^2$

2. ✔ $18\pi\ cm^2$

3. ✖ $27\pi\ cm^2$

4. ✖ $36\pi\ cm^2$

Question Number : 128 Question Id : 2310983979 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If the side of a square is 4 cm, then what is the radius of the largest circle enclosed in the square?

Options :

1. ✔ 2 cm

2. ✖ 3 cm

3. ✖ 4 cm

4. ✖ 7 cm

Question Number : 129 Question Id : 2310983980 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

If the length and width of a rectangular shape are 14 cm and 6 cm, then the ratio between its perimeter and area is:

Options :

1. ✖ 7 : 3

2. ✔ 10 : 21

3. ✖ 11 : 21

4. ✖ 9 : 7

Question Number : 130 Question Id : 2310983981 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

If the radius and height of a cylinder and cone are equal, then the ratio of the volume of the cylinder and cone will be:

Options :

1. ✖ 1 : 3

2. ✖ 1 : 9

3. ✔ 3 : 1

4. ✖ 9 : 1

Question Number : 131 Question Id : 2310983982 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

If the ratio of radii of two cones are in the ratio 5 : 3 and their heights are same, then the ratio of their volume is:

Options :

1. ✖ 5 : 9

2. ✖ 25 : 3

3. ✖ 5 : 3

4. ✔ 25 : 9

Question Number : 132 Question Id : 2310983983 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

The diameter of a circular cylinder is 10 cm and its curved surface area is 500 cm^2 . What is the volume of the cylinder?

Options :

1. ✖ 1200 cm^3

2. ✖ 1225 cm^3

3. ✔ 1250 cm^3

4. ✖ 1300 cm^3

Question Number : 133 Question Id : 2310983984 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If the radius of a cone is 5 cm and its slant height is 13 cm, then the volume of the cone is:

Options :

1. ✔ $100\pi\ cm^3$

2. ✖ $125\pi\ cm^3$

3. ✖ $150\pi\ cm^3$

4. ✖ $200\pi\ cm^3$

Question Number : 134 Question Id : 2310983985 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

If the radii of a sphere and a cylinder are 'r' cm, and the height of the cylinder is '2r' cm, then the ratio of the volumes of the sphere and the cylinder, is:

Options :

1. ✖ 1 : 2

2. ✔ 2 : 3

3. ✖ 3 : 4

4. ✖ 4 : 5

Question Number : 135 Question Id : 2310983986 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

The area of the base of a cylinder is $25\pi\ m^2$. What is the diameter of the base of the cylinder?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 6 cm

2. 8 cm

3. 10 cm

4. 12 cm

Question Number : 136 Question Id : 2310983987 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

If the ratio of the radii of two cylinders is 1 : 2, and the ratio between their volumes is 5 : 12, then the ratio between their heights is:

Options :

1. ✖ 1 : 4

2. ✔ 5 : 3

3. ✖ 4 : 1

4. ✖ 3 : 1

Question Number : 137 Question Id : 2310983988 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

ABCD is a square of side 4 cm. If E is a point in the interior of the square such that ΔCED is equilateral, then the ΔACE is:

Options :

1. ✖ $2(\sqrt{3}-1)\text{cm}^2$

2. ✔ $4(\sqrt{3}-1)\text{cm}^2$

3. ✖ $6(\sqrt{3}-1)\text{cm}^2$

4. ✖ $8(\sqrt{3}-1)\text{cm}^2$

Question Number : 138 Question Id : 2310983989 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

In ΔABC, $\angle A = 90°, AB = 3$ cm and $AC = 4$ cm. If the triangle rotates about side AB, then the volume of the generated cone will be:

Options :

1. ✖ $12\,\pi\,\text{cm}^3$

2. ✖ $14\,\pi\,\text{cm}^3$

3. ✔ $16\,\pi\,\text{cm}^3$

4. ✖ $20\,\pi\,\text{cm}^3$

Question Number : 139 Question Id : 2310983990 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0.33

ABCD is a rectangle whose three vertices are B(4, 0), C(4, 3) and (0, 3). The length of one of its diagonals is:

Options :

1. ✖ 3

2. ✖ 4

3. ✔ 5

4. ✖ 25

Question Number : 140 Question Id : 2310983991 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

A well with a 10 m inside diameter is dug 14 m deep. The earth taken out of it is spread all around the well to a width of 5 m, so as to form an embankment. The height of the embankment will be:

Options :

1. ✔ $\frac{14}{3}$ m

2. ✖ $\frac{10}{3}$ m

3. ✖ $\frac{8}{3}$ m

4. ✖ $\frac{20}{3}$ m

Question Number : 141 Question Id : 2310983992 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

What is the median of the given observations 4, 8, 3, 9, 6, 7, 5, 1?

Options :

1. ✖ 5

2. ✖ 6

3. ✔ 5.5

4. ✖ 4.5

Question Number : 142 Question Id : 2310983993 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

Which is of the following is NOT a measure of central tendency?

Options :

1. ✖ Mean

2. ✖ Mode

3. ✖ Median

4. ✔ Standard deviation

Question Number : 143 Question Id : 2310983994 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The relation between the mean, median and mode in a moderately skewed distribution is:

Options :

1. ✖ $\text{Mode} = 2 \times \text{Median} - 3 \times \text{Mean}$

2. ✖ $\text{Mode} = \text{Median} - 3 \times \text{Mean}$

3. ✖ $\text{Mode} = 2 \times \text{Median} - \text{Mean}$

4. ✔ $\text{Mode} = 3 \times \text{Median} - 2 \times \text{Mean}$

Question Number : 144 Question Id : 2310983995 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the mean of the observations $x_1, x_2, x_3, \ldots, x_n$ is $\bar{x}$, then the mean of $x_1 + a,\ x_2 + a,\ x_3 + a, \ldots, x_n + a$ is:

Options :

1. ✖ $a\bar{x}$

2. ✖ $\frac{\bar{x}}{a}$

3. ✔ $\bar{x} + a$

4. ✖ $\bar{x} - a$

Question Number : 145 Question Id : 2310983996 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If the mean of the first n natural numbers is 15, then n is equal to:

Options :

1. ✖ 15

2. ✖ 30

3. ✖ 14

4. ✔ 29

Question Number : 146 Question Id : 2310983997 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

What is median of the given classes and frequency data?

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 14

2. 14.5

3. 15

4. 15.5

Question Number : 147 Question Id : 2310983998 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The following table represents frequency distribution. Study the table and answer the question.

Class	0-5	6-11	12-17	18-23	24-29
Frequency	13	10	15	8	11

The lower limit of median classes is:

Note: For this question, discrepancy is found in question/answer. So,this question is ignored for all candidates.

Options :

1. 12

2. 13.5

3. 13

4. 12.5

Question Number : 148 Question Id : 2310983999 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

The following table represents frequency distribution. Study the table and answer the question.

Class	0-5	6-11	12-17	18-23	24-29
Frequency	13	10	15	8	11

The upper limit of median classes is:

Options :

1. ✔ 17

2. ✖ 17.5

3. ✖ 18

4. ✖ 18.5

Question Number : 149 Question Id : 2310984000 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If $u_i = \frac{x_i - 25}{10}$, $\sum_{i=1}^{10} f_i u_i = 20$ & $\sum_{i=1}^{10} f_i = 100$, then $\bar{x}$ is equal to:

Options :

1. ✖ 23

2. ✖ 24

3. ✖ 25

4. ✔ 27

Question Number : 150 Question Id : 2310984001 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Negative Marks Display Text : 1/3 Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0.33

If observation data are $x_i, i = 1,2,3,\ldots,n$ and their mean is $\bar{x}$ then $\sum_{i=1}^{n}(x_i - \bar{x})$ is equal to:

Options :

1. ✖ 1

2. ✖ -1

3. ✔ 0

4. ✖ ∞