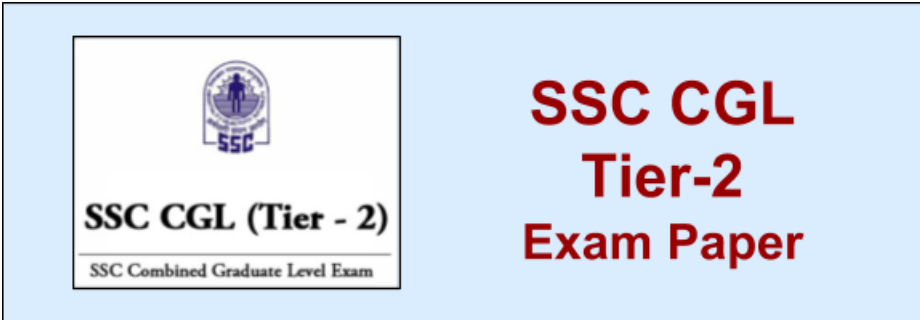


SSC CGL Tier-2 Exam Paper : 2017
"held on 18 February 2018"
Morning Shift (Quantitative Ability)



QID : 1 - How many three digit numbers are there in which all the digits are odd?

Options:

- 1) 100
- 2) 125
- 3) 500
- 4) 250

Correct Answer: 125

QID : 2 - If the sum of ten different positive integers is 100, then what is the greatest possible number among these 10 numbers?

Options:

- 1) 45
- 2) 91
- 3) 55
- 4) 64

Correct Answer: 55

QID : 3 - If $N = 0.369369369369\dots$ and $M = 0.531531531531\dots$, then what is the value of $(1/N) + (1/M)$?

Options:

- 1) $11100/2419$
- 2) $111/100$
- 3) $1897/3162$



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4) 2419/11100

Correct Answer: 11100/2419

QID : 4 -

If $A = \frac{0.216+0.008}{0.36+0.04-0.12}$ and
 $B = \frac{0.729-0.027}{0.81+0.09+0.27}$, then what is the value
of $(A^2 + B^2)^2$?

यदि $A = \frac{0.216+0.008}{0.36+0.04-0.12}$ तथा
 $B = \frac{0.729-0.027}{0.81+0.09+0.27}$ हो, तो $(A^2 + B^2)^2$ का
मान क्या है?

Options:

- 1) 0.8
- 2) 1
- 3) 1.4
- 4) 2.2

Correct Answer: 1

QID : 5 -

If $A = \frac{1}{1 \times 2} + \frac{1}{1 \times 4} + \frac{1}{2 \times 3} + \frac{1}{4 \times 7} + \frac{1}{3 \times 4}$
 $+ \frac{1}{7 \times 10} \dots$ upto 20 terms, then what is the
value of A?

यदि $A = \frac{1}{1 \times 2} + \frac{1}{1 \times 4} + \frac{1}{2 \times 3} + \frac{1}{4 \times 7} + \frac{1}{3 \times 4}$
 $+ \frac{1}{7 \times 10} \dots$ 20 पदों तक हो, तो A का मान
क्या है?

Options:

- 1) 379/308
- 2) 171/140
- 3) 379/310
- 4) 420/341

Correct Answer: 420/341

QID : 6 - If $56 \times 75 \times 60 \times 84 \times 210 = 2p \times 3q \times 5r \times$
 $7s$, then what is the value of $[(p + q)/s] + r$?

Options:

- 1) 6
- 2) 8
- 3) 12
- 4) 10

Correct Answer: 8



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QID : 7 -

If $A = 3\frac{1}{4} \times 4\frac{1}{4} \div 34 - \frac{47}{32} + \frac{47}{16}$ and

$B = 2\frac{1}{2} + 5\frac{1}{2} \div 55 - \frac{11}{10}$, then what is the value of $A - B$?

यदि $A = 3\frac{1}{4} \times 4\frac{1}{4} \div 34 - \frac{47}{32} + \frac{47}{16}$ तथा

$B = 2\frac{1}{2} + 5\frac{1}{2} \div 55 - \frac{11}{10}$ हो, तो $A - B$ का मान क्या है?

Options:

- 1) 5/8
- 2) 1
- 3) 0
- 4) 3/8

Correct Answer: 3/8

QID : 8 - What is the sum of all natural numbers between 100 and 400 which are divisible by 13?

Options:

- 1) 5681
- 2) 5334
- 3) 5434
- 4) 5761

Correct Answer: 5681

QID : 9 - If the least common multiple of two numbers, 1728 and K is 5184, then how many values of K are possible?

Options:

- 1) 11
- 2) 8
- 3) 6
- 4) 7

Correct Answer: 7

QID : 10 - If $(3^{33} + 3^{33} + 3^{33})(2^{33} + 2^{33}) = 6^x$, then what is the value of x?

Options:

- 1) 34
- 2) 35
- 3) 33
- 4) 33.5

Correct Answer: 34

QID : 11 - Which of the following statement(s) is/are true?

- I. $(65)^{1/6} > (17)^{1/4} > (12)^{1/3}$
- II. $(17)^{1/4} > (65)^{1/6} > (12)^{1/3}$
- III. $(12)^{1/3} > (17)^{1/4} > (65)^{1/6}$



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Options:

- 1) Only I
- 2) Only III
- 3) Only II
- 4) None of these

Correct Answer: Only III

QID : 12 - If $P = 7 + 4\sqrt{3}$ and $PQ = 1$, then what is the value of $(1/P^2) + (1/Q^2)$?

Options:

- 1) 148
- 2) 189
- 3) 194
- 4) 204

Correct Answer: 194

QID : 13 - If $x = (\sqrt{5}) + 1$ and $y = (\sqrt{5}) - 1$, then what is the value of $(x^2/y^2) + (y^2/x^2) + 4[(x/y) + (y/x)] + 6$?

Options:

- 1) 31
- 2) $23\sqrt{5}$
- 3) $27\sqrt{5}$
- 4) 25

Correct Answer: 25

QID : 14 - If $x = 2 + \sqrt{3}$, $y = 2 - \sqrt{3}$ and $z = 1$, then what is the value of $(x/yz) + (y/xz) + (z/xy) + 2 [(1/x) + (1/y) + (1/z)]$?

Options:

- 1) 25
- 2) 22
- 3) 17
- 4) 43

Correct Answer: 25

QID : 15 - A root of equation $ax^2 + bx + c = 0$ (where a, b and c are rational numbers) is $5 + 3\sqrt{3}$. What is the value of $(a^2 + b^2 + c^2)/(a + b + c)$?

Options:

- 1) $35/3$
- 2) $37/3$
- 3) $-105/11$
- 4) $-105/13$

Correct Answer: $-105/11$

QID : 16 - If $x = (a/b) + (b/a)$, $y = (b/c) + (c/b)$ and $z = (c/a) + (a/c)$, then what is the value of $xyz - x^2 - y^2 - z^2$?

Options:

- 1) -4
- 2) 2
- 3) -1



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4) - 6

Correct Answer: - 4

2) 81

3) 27

4) 9

Correct Answer: 27

QID : 17 - If $[a + (1/a)]^2 - 2[a - (1/a)] = 12$, then which of the following is a value of 'a'?

Options:

1) $-8 + \sqrt{3}$

2) $-8 - \sqrt{3}$

3) $-8 + \sqrt{5}$

4) None of these

Correct Answer: None of these

QID : 20 - $A = (x^8 - 1)/(x^4 + 1)$ and $B = (y^4 - 1)/(y^2 + 1)$. If $x = 2$ and $y = 9$, then what is the value of $A^2 + 2AB + AB^2$?

Options:

1) 96475

2) 98625

3) 92425

4) 89125

Correct Answer: 98625

QID : 18 - If $x^2 - 4x + 1 = 0$, then what is the value of $x^9 + x^7 - 194x^5 - 194x^3$?

Options:

1) 4

2) - 4

3) 1

4) - 1

Correct Answer: - 4

QID : 21 - If $x - 4y = 0$ and $x + 2y = 24$, then what is the value of $(2x + 3y)/(2x - 3y)$?

Options:

1) 9/5

2) 11/5

3) 13/7

4) 9/7

Correct Answer: 11/5

QID : 19 - If $x + y = 3$, then what is the value of $x^3 + y^3 + 9xy$?

Options:

1) 15



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QID : 22 - If $(x/a) + (y/b) = 3$ and $(x/b) - (y/a) = 9$, then what is the value of x/y ?

3) 210

4) 125

Options:

1) $(b + 3a)/(a - 3b)$

2) $(a + 3b)/(b - 3a)$

3) $(1 + 3a)/(a + 3b)$

4) $(a + 3b^2)/(b - 3a^2)$

Correct Answer: $(b + 3a)/(a - 3b)$

Correct Answer: 250

QID : 24 - In a triangle PQR, $\angle PQR = 90^\circ$, $PQ = 10$ cm and $PR = 26$ cm, then what is the value (in cm) of inradius of incircle?

Options:

1) 9

2) 4

3) 8

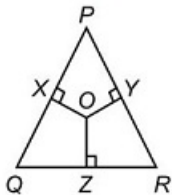
4) 6

Correct Answer: 4

QID : 23 -

In the given figure, OX, OY and OZ are perpendicular bisectors of the three sides of the triangle. If $\angle QPR = 65^\circ$ and $\angle PQR = 60^\circ$, then what is the value (in degrees) of $\angle QOR + \angle POR$?

दी गई आकृति में, OX, OY तथा OZ त्रिभुज की तीनों भुजाओं के लंब द्विभाजक हैं। यदि $\angle QPR = 65^\circ$ तथा $\angle PQR = 60^\circ$ हो, तो $\angle QOR + \angle POR$ का मान (डिग्री में) क्या है?



QID : 25 -

Options:

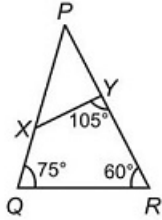
1) 250

2) 180

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In the given figure, if $\frac{QR}{XY} = \frac{14}{9}$ and $PY = 18$ cm, then what is the value (in cm) of PQ ?

दी गई आकृति में, यदि $\frac{QR}{XY} = \frac{14}{9}$ तथा $PY = 18$ से.मी. हो, तो PQ का मान (से.मी. में) क्या है?



Options:

- 1) 28
- 2) 18
- 3) 21
- 4) 24

Correct Answer: 28

QID : 26 - In a triangle PQR, PX, QY and RZ be altitudes intersecting at O. If $PO = 6$ cm, $PX = 8$ cm and $QO = 4$ cm, then what is the value (in cm) of QY ?

Options:

- 1) 6.3
- 2) 5.8
- 3) 6

4) 7

Correct Answer: 7

QID : 27 - A line cuts two concentric circles. The lengths of chords formed by that line on the two circles are 4 cm and 16 cm. What is the difference (in cm^2) in squares of radii of two circles?

Options:

- 1) 240
- 2) 120
- 3) 60
- 4) 90

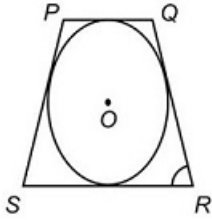
Correct Answer: 60

QID : 28 -

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In the given figure, a circle touches the sides of the quadrilateral $PQRS$. The radius of the circle is 9 cm. $\angle RSP = \angle SRQ = 60^\circ$ and $\angle PQR = \angle QPS = 120^\circ$. What is the perimeter (in cm) of the quadrilateral?

दी गई आकृति में, एक वृत्त चतुर्भुज $PQRS$ की भुजाओं को स्पर्श कर रहा है। वृत्त की त्रिज्या 9 से.मी. है। $\angle RSP = \angle SRQ = 60^\circ$ तथा $\angle PQR = \angle QPS = 120^\circ$ है। चतुर्भुज का परिमाण (से.मी. में) क्या है?



Options:

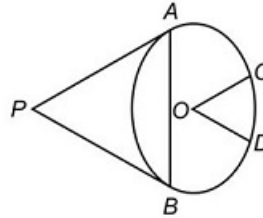
- 1) $36\sqrt{3}$
- 2) $24\sqrt{3}$
- 3) $48\sqrt{3}$
- 4) 32

Correct Answer: $48\sqrt{3}$

QID : 29 -

In the given figure, from the point P two tangents PA and PB are drawn to a circle with centre O and radius 5 cm. From the point O , OC and OD are drawn parallel to PA and PB respectively. If the length of the chord AB is 5 cm, then what is the value (in degrees) of $\angle COD$?

दी गई आकृति में, बिन्दु P से एक वृत्त जिसका केन्द्र O है तथा त्रिज्या 5 से.मी. है, पर PA तथा PB दो स्पर्श रेखाएँ खींची गई हैं। बिन्दु O से OC तथा OD को क्रमशः PA तथा PB के समानांतर खींचा गया है। यदि जीवा AB की लम्बाई 5 से.मी. है, तो $\angle COD$ का मान (डिग्री में) क्या है?



Options:

- 1) 90
- 2) 120
- 3) 150
- 4) 135

Correct Answer: 120

QID : 30 -



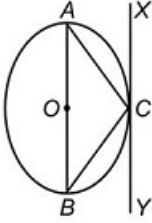
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In the given figure, AB is a diameter of the circle with centre O and XY is the tangent at a point C . If $\angle ACX = 35^\circ$, then what is the value (in degrees) of $\angle CAB$?

दी गई आकृति में, AB एक वृत्त जिसका केन्द्र O है, का व्यास है तथा XY , बिन्दु C पर एक स्पर्श रेखा है। यदि $\angle ACX = 35^\circ$ है, तो $\angle CAB$ का मान (डिग्री में) क्या है?



Options:

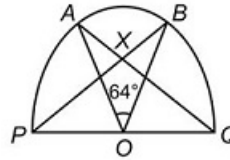
- 1) 45
- 2) 35
- 3) 55
- 4) 65

Correct Answer: 55

QID : 31 -

In the given figure, PQ is a diameter of the semicircle $PABQ$ and O is its center. $\angle AOB = 64^\circ$. BP cuts AQ at X . What is the value (in degrees) of $\angle AXP$?

दी गई आकृति में, PQ , अर्धवृत्त $PABQ$ का व्यास है तथा O इसका केन्द्र है। $\angle AOB = 64^\circ$ है। BP , AQ को X पर काटता है। $\angle AXP$ का मान (डिग्री में) क्या है?



Options:

- 1) 36
- 2) 32
- 3) 58
- 4) 54

Correct Answer: 58

QID : 32 -



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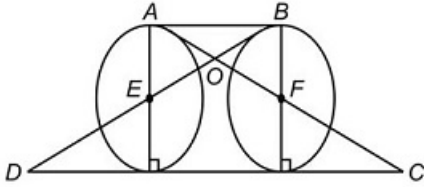
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In the given figure, E and F are the centers of two identical circles. What is the ratio of area of triangle AOB to the area of triangle DOC ?

दी गई आकृति में, E तथा F दो समरूप वृत्तों के केन्द्र हैं। त्रिभुज AOB के क्षेत्रफल का त्रिभुज DOC के क्षेत्रफल से क्या अनुपात है?



Options:

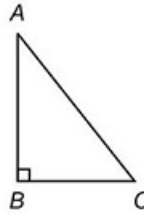
- 1) 1 : 3
- 2) 1 : 9
- 3) 1 : 8
- 4) 1 : 4

Correct Answer: 1 : 9

QID : 33 -

In the given figure, in a right angle triangle ABC , $AB = 12$ cm and $AC = 15$ cm. A square is inscribed in the triangle. One of the vertices of square coincides with the vertex of triangle. What is the maximum possible area (in cm^2) of the square?

दी गई आकृति में, एक समकोण त्रिभुज ABC में, $AB = 12$ से.मी. तथा $AC = 15$ से.मी. हैं। त्रिभुज के भीतर एक वर्ग बनाया गया है। वर्ग के शीर्षों में से एक त्रिभुज के शीर्ष से स्पर्श करता है। वर्ग का अधिकतम संभव क्षेत्रफल (से.मी.² में) क्या है?



Options:

- 1) 1296/49
- 2) 25
- 3) 1225/36
- 4) 1225/64

Correct Answer: 1296/49

QID : 34 -

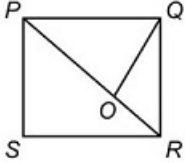
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In the given figure, $PQRS$ is a square of side 8 cm. $\angle PQO = 60^\circ$. What is the area (in cm^2) of the triangle POQ ?

दी गई आकृति में, $PQRS$ 8 से.मी. भुजा वाला एक वर्ग है। $\angle PQO = 60^\circ$ है। त्रिभुज POQ का क्षेत्रफल (से.मी.² में) क्या है?



Options:

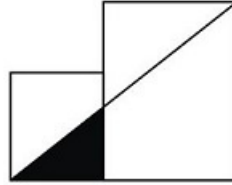
- 1) $32\sqrt{3}$
- 2) $24[(\sqrt{3}) - 1]$
- 3) $48[(\sqrt{3}) - 1]$
- 4) $16[3 - (\sqrt{3})]$

Correct Answer: $16[3 - (\sqrt{3})]$

QID : 35 -

In the given figure, two squares of sides 8 cm and 20 cm are given. What is the area (in cm^2) of the shaded part?

दी गई आकृति में, 8 से.मी. तथा 20 से.मी. भुजा वाले दो वर्ग दिये गये हैं। छायांकित भाग का क्षेत्रफल (से.मी.² में) क्या है?



Options:

- 1) $120/7$
- 2) $160/7$
- 3) $180/7$
- 4) $240/13$

Correct Answer: $160/7$

QID : 36 - The area of a regular hexagon is equal to the area of the square. What is the ratio of the perimeter of the regular hexagon to the perimeter of square?

Options:

- 1)

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$$\sqrt{6\sqrt{3}} : \sqrt{3\sqrt{6}}$$

2)

$$2\sqrt{3} : \sqrt{6\sqrt{2}}$$

3)

$$\sqrt{6\sqrt{3}} : 2$$

4)

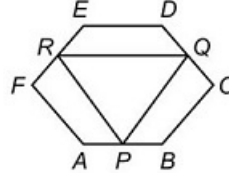
$$\sqrt{6\sqrt{3}} : 2\sqrt{3}$$

Correct Answer:

QID : 37 -

In the given figure, $ABCDEF$ is a regular hexagon of side 12 cm. P , Q and R are the mid points of the sides AB , CD and EF respectively. What is the area (in cm^2) of triangle PQR ?

दी गई आकृति में, $ABCDEF$ एक सम षट्भुज है जिसकी भुजा 12 से.मी. है। P , Q तथा R क्रमशः भुजाओं AB , CD तथा EF के मध्य बिन्दु हैं। त्रिभुज PQR का क्षेत्रफल (से.मी.² में) क्या है?



Options:

- 1) $27\sqrt{6}$
- 2) $81\sqrt{3}$
- 3) $54\sqrt{3}$
- 4) $54\sqrt{6}$

Correct Answer: $81\sqrt{3}$

QID : 38 - A man is running at the speed of 20 km/hr. What is time (in seconds) taken by man to cover one round of a circular garden of radius 350 metres?

Options:

- 1) 412
- 2) 336

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3) 396

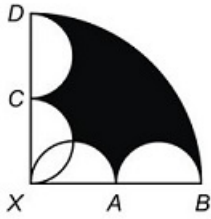
4) 376

Correct Answer: 396

QID : 39 -

In the given figure, four identical semicircles are drawn in a quadrant. $XA = 7$ cm. What is the area (in cm^2) of shaded region?

दी गई आकृति में, चार समरूप अर्धवृत्तों को एक वृत्त के चतुर्थ भाग में बनाया गया है। $XA = 7$ से.मी. है। छायांकित भाग का क्षेत्रफल (से.मी.² में) क्या है?



Options:

1) 70

2) 140

3) 77

4) 84

Correct Answer: 84

QID : 40 - A regular hexagonal base prism has height 8 cm and side of base is 4 cm. What is the total surface area (in cm^2) of the prism?

Options:

1) $54(3 + \sqrt{3})$

2) $36(3 + \sqrt{3})$

3) $48(4 + \sqrt{3})$

4) $24(4 + \sqrt{3})$

Correct Answer: $48(4 + \sqrt{3})$

QID : 41 - A cube is placed inside a cone of radius 20 cm and height 10 cm, one of its face being on the base of the cone and vertices of opposite face touching the cone. What is the length (in cm) of side of the cube?

Options:

1) 5

2) 6

3) 8

4) 9

Correct Answer: 8

QID : 42 - A cylinder of radius 4.5 cm and height 12 cm just fits in another cylinder completely with their axis perpendicular. What is the radius (in cm) of second cylinder?

Options:

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- 1) 5
- 2) 6
- 3) 15
- 4) 7.5

Correct Answer: 7.5

QID : 43 - A right circular cylinder has height 28 cm and radius of base 14 cm. Two hemispheres of radius 7 cm each are cut from each of the two bases of the cylinder. What is the total surface area (in cm²) of the remaining part?

Options:

- 1) 3842
- 2) 4312
- 3) 3296
- 4) 4436

Correct Answer: 4312

QID : 44 - Two spheres of equal radius are taken out by cutting from a solid cube of side $(12 + 4\sqrt{3})$ cm. What is the maximum volume (in cm³) of each sphere?

Options:

- 1) 1077.31
- 2) 905.14
- 3) 966.07

- 4) 1007.24

Correct Answer: 905.14

QID : 45 - Three toys are in a shape of cylinder, hemisphere and cone. The three toys have same base. Height of each toy is $2\sqrt{2}$ cm. What is the ratio of the total surface areas of cylinder, hemisphere and cone respectively?

Options:

- 1) 4 : 3 : $[(\sqrt{2}) + 1]$
- 2) 4 : 3 : $[2 + (\sqrt{2})]$
- 3) 4 : 3 : $2\sqrt{2}$
- 4) 2 : 1 : $(1 + \sqrt{2})$

Correct Answer: 4 : 3 : $[(\sqrt{2}) + 1]$

QID : 46 - A solid cube is cut into 27 identical cubes. What is the percentage increase in the total surface area?

Options:

- 1) 150
- 2) 200
- 3) 300
- 4) 250

Correct Answer: 200



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QID : 47 - A regular square pyramid has side of its base 20 cm and height 45 cm is melted and recast into regular triangular pyramids of equilateral base of side 10 cm and height $10\sqrt{3}$ cm. What are the total numbers of regular triangular pyramid?

Options:

- 1) 24
- 2) 20
- 3) 27
- 4) 28

Correct Answer: 24

QID : 48 - What is the value of $[(\sin 7x - \sin 5x) \div (\cos 7x + \cos 5x)] - [(\cos 6x - \cos 4x) \div (\sin 6x + \sin 4x)]$?

Options:

- 1) 1
- 2) $2 \tan x$
- 3) $\tan 2x$
- 4) $\tan(3x/2)$

Correct Answer: $2 \tan x$

QID : 49 - What is the value of $[(\cos 3\theta + 3 \cos 2\theta) \div (\cos 6\theta - \sin 6\theta)]$?

Options:

- 1) 0
- 2) 1

3) 4

4) 2

Correct Answer: 4

QID : 50 -

What is the value of

$$\tan\left(\frac{\pi}{4} + A\right) \times \tan\left(\frac{3\pi}{4} + A\right)?$$

$$\tan\left(\frac{\pi}{4} + A\right) \times \tan\left(\frac{3\pi}{4} + A\right)$$

का मान क्या है?

Options:

- 1) 1
- 2) 0
- 3) $\cot A/2$
- 4) -1

Correct Answer: -1

QID : 51 -



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What is the value of

$$\left[(\sec 2\theta + 1)\sqrt{\sec^2 \theta - 1} \right] \times \frac{1}{2}(\cot \theta - \tan \theta)?$$

$$\left[(\sec 2\theta + 1)\sqrt{\sec^2 \theta - 1} \right] \times \frac{1}{2}(\cot \theta - \tan \theta) का$$

मान क्या है?

1) $1/\sqrt{2}$

2) $2\sqrt{2}$

3) $\sqrt{3}$

4) $\sqrt{2}$

Correct Answer: $\sqrt{2}$

Options:

1) 0

2) 1

3) cosec θ

4) sec θ

Correct Answer: 1

QID : 52 - What is the value of $\sin(63^\circ + A) + \cos A$?

Options:

1) $\sqrt{3}/2$

2) $1/2$

3) 0

4) $2/\sqrt{3}$

Correct Answer: 0

QID : 53 - What is the value of $[(\sin 59^\circ \cos 31^\circ + \cos 59^\circ \sin 31^\circ) + (\cos 20^\circ \cos 25^\circ - \sin 20^\circ \sin 25^\circ)]$?

Options:

QID : 54 - What is the value of $\cos(90^\circ - B) \sin(C - A) + \sin(90^\circ + A) \cos(B + C) - \sin(90^\circ - C) \cos(A + B)$?

Options:

1) 1

2) $\sin(A + B - C)$

3) $\cos(B + C - A)$

4) 0

Correct Answer: 0

QID : 55 - Two trees are standing along the opposite sides of a road. Distance between the two trees is 400 metres. There is a point on the road between the trees. The angle of depressions of the point from the top of the trees are 45° and 60° . If the height of the tree which makes 45° angle is 200 metres, then what will be the height (in metres) of the other tree?

Options:

1) 200

2) $200\sqrt{3}$



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3) $100\sqrt{3}$

Correct Answer: 960

4) 250

Correct Answer: $200\sqrt{3}$

QID : 58 -

QID : 56 - A tower stands on the top of a building which is 40 metres high. The angle of depression of a point situated on the ground from the top and bottom of the tower are found to be 60° and 45° respectively. What is the height (in metres) of tower?

Options:

1) $20\sqrt{3}$

2) $30(\sqrt{3} + 1)$

3) $40(\sqrt{3} - 1)$

4) $50(\sqrt{3} - 1)$

Correct Answer: $40(\sqrt{3} - 1)$

QID : 57 - From a point P, the angle of elevation of a tower is such that its tangent is $\frac{3}{4}$. On walking 560 metres towards the tower the tangent of the angle of elevation of the tower becomes $\frac{4}{3}$. What is the height (in metres) of the tower?

Options:

1) 720

2) 960

3) 840

4) 1030



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- 1) 21866.67
- 2) 26466.6
- 3) 19200
- 4) 26000

Correct Answer: 21866.67

The table below shows the sales of milk in six different states as a percentage of total sales. In each state only two milkmen A and B sell the milk. The table below shows the sales of salesman A as percentage of total sale of milk in each state. The total sales of milk is 200000 litres.

नीचे दी गई तालिका में छः विभिन्न राज्यों में दूध की कुल बिक्री को प्रतिशत में दर्शाया गया है। प्रत्येक राज्य में केवल दो दूध विक्रेता A तथा B दूध बेचते हैं। नीचे दी गई तालिका प्रत्येक राज्य में दूध की कुल बिक्री के प्रतिशत में विक्रेता A द्वारा की गई बिक्री को दर्शाती है। दूध की कुल बिक्री 200000 लीटर है।

| State / राज्य | Sales of milk / दूध की बिक्री | Sales by salesman A / विक्रेता A द्वारा बिक्री |
|---------------|-------------------------------|--|
| P | 24% | 65% |
| Q | 10% | 80% |
| R | 17% | 50% |
| S | 13% | 70% |
| T | 22% | 60% |
| U | 14% | 80% |

What are the average sales of milk (in litres) by the salesmen A in all the given states?

Options:



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QID : 59 -

The table below shows the sales of milk in six different states as a percentage of total sales. In each state only two milkmen A and B sell the milk. The table below shows the sales of salesman A as percentage of total sale of milk in each state. The total sales of milk is 200000 litres.

नीचे दी गई तालिका में छः विभिन्न राज्यों में दूध की कुल बिक्री को प्रतिशत में दर्शाया गया है। प्रत्येक राज्य में केवल दो दूध विक्रेता A तथा B दूध बेचते हैं। नीचे दी गई तालिका प्रत्येक राज्य में दूध की कुल बिक्री के प्रतिशत में विक्रेता A द्वारा की गई बिक्री को दर्शाती है। दूध की कुल बिक्री 200000 लीटर है।

| State / राज्य | Sales of milk / दूध की बिक्री | Sales by salesman A / विक्रेता A द्वारा बिक्री |
|---------------|-------------------------------|--|
| P | 24% | 65% |
| Q | 10% | 80% |
| R | 17% | 50% |
| S | 13% | 70% |
| T | 22% | 60% |
| U | 14% | 80% |

What is the respective ratio of sales of milk in state P and Q by salesmen B and the sales of milk in state R and T by salesmen A?

Options:

1) 52 : 109

2) 104 : 217

3) 52 : 31

4) 31 : 57

Correct Answer: 104 : 217

QID : 60 -

The table below shows the sales of milk in six different states as a percentage of total sales. In each state only two milkmen A and B sell the milk. The table below shows the sales of salesman A as percentage of total sale of milk in each state. The total sales of milk is 200000 litres.

नीचे दी गई तालिका में छः विभिन्न राज्यों में दूध की कुल बिक्री को प्रतिशत में दर्शाया गया है। प्रत्येक राज्य में केवल दो दूध विक्रेता A तथा B दूध बेचते हैं। नीचे दी गई तालिका प्रत्येक राज्य में दूध की कुल बिक्री के प्रतिशत में विक्रेता A द्वारा की गई बिक्री को दर्शाती है। दूध की कुल बिक्री 200000 लीटर है।

| State / राज्य | Sales of milk / दूध की बिक्री | Sales by salesman A / विक्रेता A द्वारा बिक्री |
|---------------|-------------------------------|--|
| P | 24% | 65% |
| Q | 10% | 80% |
| R | 17% | 50% |
| S | 13% | 70% |
| T | 22% | 60% |
| U | 14% | 80% |



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What will be the central angle (in degrees) formed by the average sale of milk in state Q, T and S together?

Options:

- 1) 112.6
- 2) 72
- 3) 36
- 4) 54

Correct Answer: 54

QID : 61 -

The table below shows the sales of milk in six different states as a percentage of total sales. In each state only two milkmen A and B sell the milk. The table below shows the sales of salesman A as percentage of total sale of milk in each state. The total sales of milk is 200000 litres.

नीचे दी गई तालिका में छः विभिन्न राज्यों में दूध की कुल बिक्री को प्रतिशत में दर्शाया गया है। प्रत्येक राज्य में केवल दो दूध विक्रेता A तथा B दूध बेचते हैं। नीचे दी गई तालिका प्रत्येक राज्य में दूध की कुल बिक्री के प्रतिशत में विक्रेता A द्वारा की गई बिक्री को दर्शाती है। दूध की कुल बिक्री 200000 लीटर है।

| State / राज्य | Sales of milk / दूध की बिक्री | Sales by salesman A / विक्रेता A द्वारा बिक्री |
|---------------|-------------------------------|--|
| P | 24% | 65% |
| Q | 10% | 80% |
| R | 17% | 50% |
| S | 13% | 70% |
| T | 22% | 60% |
| U | 14% | 80% |

What will be difference (in litres) in the sale of milk in state T by salesmen B and the total sale of milk in state R and S together?

Options:

- 1) 17600



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- 2) 42400
3) 38800
4) 19000

Correct Answer: 42400

QID : 62 -

The table below shows the sales of milk in six different states as a percentage of total sales. In each state only two milkmen *A* and *B* sell the milk. The table below shows the sales of salesman *A* as percentage of total sale of milk in each state. The total sales of milk is 200000 litres.

नीचे दी गई तालिका में छः विभिन्न राज्यों में दूध की कुल बिक्री को प्रतिशत में दर्शाया गया है। प्रत्येक राज्य में केवल दो दूध विक्रेता *A* तथा *B* दूध बेचते हैं। नीचे दी गई तालिका प्रत्येक राज्य में दूध की कुल बिक्री के प्रतिशत में विक्रेता *A* द्वारा की गई बिक्री को दर्शाती है। दूध की कुल बिक्री 200000 लीटर है।

| State / राज्य | Sales of milk / दूध की बिक्री | Sales by salesman <i>A</i> / विक्रेता <i>A</i> द्वारा बिक्री |
|---------------|-------------------------------|--|
| <i>P</i> | 24% | 65% |
| <i>Q</i> | 10% | 80% |
| <i>R</i> | 17% | 50% |
| <i>S</i> | 13% | 70% |
| <i>T</i> | 22% | 60% |
| <i>U</i> | 14% | 80% |

What is the difference (in litres) between the sale of milk in state *R* by salesmen *A* and the sale of milk in the same state by the salesmen *B*?

Options:

- 1) 2000
2) 0
3) 12000
4) 8000

Correct Answer: 0

QID : 63 - A beaker contains acid and water in the ratio 1 : x . When 300 ml of the mixture and 50 ml of water are mixed, the ratio of acid and water becomes 2 : 5. What is the value of x ?

Options:

- 1) 2
2) 1
3) 3
4) 4

Correct Answer: 2

QID : 64 - A mixture is composed of 11 parts of pure milk and 2 parts of water. If 35 litres of water were added to the mixture then the new mixture will contain twice as much pure milk as water, then how many litres of pure milk does the original mixture contain?

Options:



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- 1) 110
- 2) 55
- 3) 220
- 4) 70

Correct Answer: 110

QID : 65 - A starts a taxi service by investing Rs 25 lakhs. After 3 months, B joins the business by investing Rs 40 lakhs then 4 months after B joined, C too joins them by investing Rs 50 lakhs. One year after A started the business they make Rs 2,73,000 in profit. What is C's share of the profit (in Rs)?

Options:

- 1) 100000
- 2) 1,25,000
- 3) 75000
- 4) 1,50,000

Correct Answer: 75000

QID : 66 - A, B and C invest in a business in the ratio 4 : 5 : 7. C is a sleeping partner, so his share of profits will be half of what it would have been if he were a working partner. If they make Rs 36,000 profit of which 25% is reinvested in the business, how much does B get (in Rs)?

Options:

- 1) 7560

- 2) 10800
- 3) 8640
- 4) 9200

Correct Answer: 10800

QID : 67 - A can do a work in 36 days and B in 12 days. If they work on it together for 3 days, then what fraction of work is left?

Options:

- 1) 2/3
- 2) 1/3
- 3) 1/4
- 4) 1/5

Correct Answer: 2/3

QID : 68 - A can paint a house in 45 days and B can do it in 15 days. Along with C, they did the job in 5 days only. Then, C alone can do the job in how many days?

Options:

- 1) 12
- 2) 9
- 3) 15
- 4) 8

Correct Answer: 9



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QID : 69 - A, B and C together can finish a task in 7.5 days. C is thrice as productive as A and B alone can do the task in 15 days. In how many days can A and C do the job if B goes on leave?

Options:

- 1) 30
- 2) 10
- 3) 20
- 4) 15

Correct Answer: 15

QID : 70 - A, B and C can do job in 9, 12 and 36 days respectively if they worked alone. A leaves after they have worked together for 3 days. In how many days can B and C do the rest of the job?

Options:

- 1) 3
- 2) 4
- 3) 5
- 4) 6

Correct Answer: 3

QID : 71 - Giving two successive discounts of 40% is equal to giving one discount of _____%.

Options:

- 1) 80

2) 96

3) 64

4) 72

Correct Answer: 64

QID : 72 - If a website is selling smartphone at Rs 18,000 which is marked at Rs 25,000, then what is the discount (in %) at which the smartphone is being sold?

Options:

- 1) 25
- 2) 22
- 3) 28
- 4) 20

Correct Answer: 28

QID : 73 - If on an item there is 12% discount on the marked price of Rs 10,000 but the item is sold at Rs 8,360 only then what additional discount (in %) did the customer get?

Options:

- 1) 6
- 2) 7
- 3) 5
- 4) 8

Correct Answer: 5



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QID : 74 - A shopkeeper marks up his wares by 125% and offers 25% discount. What will be the selling price if the cost price (in Rs) is Rs 640?

Options:

- 1) 1080
- 2) 1000
- 3) 920
- 4) 860

Correct Answer: 1080

QID : 75 - Priya's marks in History and Geography are in the ratio 5 : 7. If she got 14 marks more in Geography than in History, what are her History marks?

Options:

- 1) 49
- 2) 42
- 3) 56
- 4) 35

Correct Answer: 35

QID : 76 - The ratio of present ages of Rahul and his sister is 3 : 4. Before 10 years the ratio of their ages was 13:19. What is Rahul's present age (in years)?

Options:

- 1) 36
- 2) 48
- 3) 42
- 4) 54

Correct Answer: 36

QID : 77 - What is the third proportional to 9 and 15?

Options:

- 1) 30
- 2) 27
- 3) 36
- 4) 25

Correct Answer: 25

QID : 78 - According to the will, the wealth of Rs 11,50,000 was to be divided between the son and the daughter in the ratio $\frac{2}{3} : \frac{5}{4}$. How much share did the son get (in Rs lakhs)?

Options:

- 1) 5
- 2) 6
- 3) 7
- 4) 4

Correct Answer: 4



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QID : 79 - If Rs 7,800 is to be divided between A, B and C in the ratio $1/2 : 1/3 : 1/4$, then how much share will B get (in Rs)?

Options:

- 1) 3600
- 2) 1800
- 3) 2400
- 4) 1200

Correct Answer: 2400

QID : 80 - Bunty had candies and chewing gums in his sweet box in the ratio 7 : 13. After he has eaten 8 candies and 11 chewing gums the ratio became 1 : 2. How many candies does he have now?

Options:

- 1) 65
- 2) 35
- 3) 54
- 4) 27

Correct Answer: 27

QID : 81 - The average weight of P, Q and R is 71 kg. If the average weight of P and Q be 66 kg and that of Q and R be 76.5 kg, then the weight (in kg) of Q is.

Options:

- 1) 60

2) 72

3) 81

4) 75

Correct Answer: 72

QID : 82 - Rita buys 5 sarees at an average cost of Rs 2250. If she buys three more sarees at an average cost of Rs 2750, what will be the average (in Rs) of all the sarees she buys?

Options:

- 1) 2437.5
- 2) 2500
- 3) 2450
- 4) 2332.5

Correct Answer: 2437.5

QID : 83 - In a one day match of 50 overs in an innings the team A had a run rate of 5.3 runs per over. Team B is playing and 5 overs are left and the required run rate to tie the match is 7.2 per over to match the score of Team A. What is team B's score?

Options:

- 1) 265
- 2) 238
- 3) 254
- 4) 229



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Correct Answer: 229

2) 6082

3) 7120

4) 7022

Correct Answer: 6984

QID : 84 - Average of all even numbers between 104 and 148 is _____.

Options:

1) 128

2) 130

3) 124

4) 126

Correct Answer: 126

QID : 87 - A trader had 2000 kgs of rice. He sold a part of it at 10% profit and the rest at 16% profit, so that he made a total profit of 14.2%. How much rice (in kg) did he sell at 10% profit?

Options:

1) 1400

2) 600

3) 800

4) 1000

Correct Answer: 600

QID : 85 - A vendor buys bananas at 4 for Rs 3 and sells at 3 for Rs 4. What will be the result?

Options:

1) 43.75% profit

2) 77.7% loss

3) 77.7% profit

4) 43.75% loss

Correct Answer: 77.7% profit

QID : 88 - A used car dealer sells a car for Rs 7.6 lakhs and makes some loss. If he had sold it for Rs 9.2 lakhs his profit would have been thrice his loss. What was the cost price of the car (in Rs lakhs)?

Options:

1) 8.5

2) 8.75

3) 8.25

4) 8

Correct Answer: 8

QID : 86 - A wholesaler sells a watch to a retailer at a profit of 8% and the retailer sells it to a customer at a profit of 12%. If the customer pays Rs. 8,448 what had it cost (approximately) to the wholesaler (in Rs)?

Options:

1) 6984



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QID : 89 - 0.09% of 25% of 1200 is equal to _____.

Options:

- 1) 0.27
- 2) 2.7
- 3) 27
- 4) 270

Correct Answer: 0.27

QID : 90 - When a number is increased by 20, it becomes 116% of itself. What is the number?

Options:

- 1) 100
- 2) 250
- 3) 125
- 4) 400

Correct Answer: 125

QID : 91 - Two numbers are 50% and 75% lesser than a third number. By how much percent is the second number to be enhanced to make it equal to the first number?

Options:

- 1) 50
- 2) 25

3) 75

4) 100

Correct Answer: 100

QID : 92 - Price of petrol increased from Rs 60/liter to Rs 75/liter. How much should the consumption of petrol be reduced (in %) so as to increase expenditure by only 10%?

Options:

- 1) 12
- 2) 20
- 3) 15
- 4) 18

Correct Answer: 12

QID : 93 - A train has to cover a distance of 900 km in 25 hours. What should be its average speed in meters/second?

Options:

- 1) 20
- 2) 10
- 3) 18
- 4) 36

Correct Answer: 10



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QID : 94 - If a boat goes upstream at a speed of 18 km/hr and comes back the same distance at 30 km/hr. What is the average speed (in km/hr) for the total journey?

Options:

- 1) 22.5
- 2) 24
- 3) 20.5
- 4) 25

Correct Answer: 22.5

QID : 95 - Two cyclists A and B start cycling at 21 km/hr and 24 km/hr towards each other. They meet after 1 hour and 12 minutes. How far (in km) were they from each other when they started?

Options:

- 1) 48
- 2) 42
- 3) 54
- 4) 36

Correct Answer: 54

QID : 96 - Excluding stoppages, the speed of a bus is 60 kmph and including stoppages, it is 45 kmph. For how many minutes does the bus stop per hour?

Options:

- 1) 12
- 2) 9
- 3) 15
- 4) 10

Correct Answer: 15

QID : 97 - If in 3 years at simple interest the principal increases by 15%. What will be the approximate compound interest earned (in Rs lakhs) on Rs 15 lakhs in 3 years at the same rate?

Options:

- 1) 7.81
- 2) 2.87
- 3) 2.36
- 4) 3.38

Correct Answer: 2.36

QID : 98 - If the amount received at the end of 2nd and 3rd year at compound Interest on a certain Principal is Rs 9,600 and Rs 10,272 respectively, what is the rate of interest (in %)?

Options:

- 1) 7
- 2) 8
- 3) 6
- 4) 5



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Correct Answer: 7

QID : 99 - A invested an amount of x rupees in a bank for 2 years which gave 5% interest in year 1 and 6% interest in year 2. The amount received after 2 years is Rs 24,486. What is the value of x?

Options:

- 1) 23000
- 2) 22500
- 3) 22000
- 4) 21500

Correct Answer: 22000

QID : 100 - What is the difference (in Rs) in Compound interest earned in 1 year on a sum of Rs 10,000 at 40% per annum compounded quarterly and annually?

Options:

- 1) 461
- 2) 346
- 3) 463
- 4) 641

Correct Answer: 641



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