FOREST SECTION OFFICER
MATHEMATICS
FINAL KEY

**Question Number : 1 Question Id : 47163915055 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The sum of all the remainders, which can be obtained when cube of a natural

Number is divided by 9, is:

**Options :**

4. ✔ 9

**Question Number : 2 Question Id : 47163915056 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

On selling 82 oranges a fruit seller gains the selling price of 7 oranges. His gain

percent is:

**Options :**

3. ✔ $9\frac{1}{3}$

**Question Number : 3 Question Id : 47163915057 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Options :**

Which least number should be added to 7560 so that the sum becomes a perfect

Square?

2. ✔ 9

**Question Number : 4 Question Id : 47163915058 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

What is the least number which when divided by 20, 25, 35 and 40 leaves respectively

13, 18, 28 and 33 as remainders?

**Line Question Option : No Option Orientation : Vertical**

**Options :**

2. ✔ 1393

**Question Number : 5 Question Id : 47163915059 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

A can do a piece of work in 8 hours, B and C together can do in 6 hours, A and C

together do it in 4 hours. How long time B will take to do it alone?

**Line Question Option : No Option Orientation : Vertical**

**Options :**

3. ✔ 24 hours

**Question Number : 6 Question Id : 47163915060 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

A certain sum becomes 5 times at 10% simple interest per year. At what yearly

rate of interest it can become 7 times in the same time?

**Options :**

2. ✔ 15%

**Question Number : 7 Question Id : 47163915061 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

A person incurs 20% loss by selling an article for₹ 430. At what price must he sell to

earn 20% profit?

**Line Question Option : No Option Orientation : Ver**

**Options :**

DELETED

**Question Number : 8 Question Id : 47163915062 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

A train of length 110m is moving with speed of 36 km/h. The time taken by the train,

to cross a bridge of length 132 m, is:

**Options :**

2. ✔ 24.2 second

**Question Number : 9 Question Id : 47163915063 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The sale price of an article including GST is ₹649. The rate of GST is 18%. If the

Shop keeper has made a profit of 10%, then the cost price of the article is:

**Options :**

3. ✔ ₹500

**Question Number : 10 Question Id : 47163915064 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

A contractor undertook to do a piece of work in 40 days. He engages 100 men at the

beginning and 100 more after 35 days and completed the work in stipulated time. Had

he not engaged the additional men, how many days behind scheduled would it be

finished?

**Options :**

1. ✔ 5

**Question Number : 11 Question Id : 47163915065 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A sum of money is divided between A,B,C and D in such a way that A and B

may get as 3:5, B and C as 6:7 and C and D as 8:9. The ratio, in which A and D

get, is:

**Options :**

1. ✔ 16:35

**Question Number : 12 Question Id : 47163915066 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

If n is divided by 7, the remainder is 4. If 3n+1 will be divided by 7, the remainder

will be:

**Line Question Option : No Option Orientation : Vertical**

**Options :**

4. ✔ 6

**Question Number : 13 Question Id : 47163915067 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The least number, which is divisible by all natural numbers from 1 to 10, is:

1. 2520

**Question Number : 14 Question Id : 47163915068 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The greatest number, which when divides 764, 902 and 1178 leaves the same

remainder; is:

**Options :**

3. ✔ 138

**Question Number : 15 Question Id : 47163915069 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A person takes ₹10,000 loan at the rate of 10% interest compounding yearly for a period of 4 years. How much interest has he to pay?

**Options :**

4. ✔ ₹ 4641

**Question Number : 16 Question Id : 47163915070 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If LCM of 15, 25, 30 and x is 300, the minimum value of x is:

**Options :**

3. ✔ 4

**Question Number : 17 Question Id : 47163915071 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following is a rational number?

**Options :**

**DELETED**

**Question Number : 18 Question Id : 47163915072 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If $\log 2 = 0.3010$, then number of digits in $2^{30}$ is :

**Options :**

2. ✔ 10

**Question Number : 19 Question Id : 47163915073 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

abc is a three digit number and 3 does not divide it. Then abc + bca + cab is not divisible by

**Options :**

4. ✔ 9

**Question Number : 20 Question Id : 47163915074 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If $\log 2 = 0.3010$, the value of log 3125 is :

**Options :**

3. ✔ 3.4950

**Question Number : 21 Question Id : 47163915075 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If the number 56201xy4235 is divisible by 99, then x and y respectively are equal to :

**Options :**

3. ✔ 5 and 3

**Question Number : 22 Question Id : 47163915076 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

What should be added to each of the numbers 12, 30 and 40, 86 so that they are in same proportion?

**Options :**

4. ✔ 6

**Question Number : 23 Question Id : 47163915077 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

The monthly incomes of A and B are in the ratio 4:5 and their monthly expenditures are in the ratio 7:9. If each saves ₹500 per month, the monthly income of A is:

**Options :**

1. ✔ ₹4000

**Question Number : 24 Question Id : 47163915078 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

If the polynomials $ax^3 - 7x^2 + 7x - 2$ and $x^3 - 2ax^2 + 8x - 8$ have the same remainder, when divided by $x - 2$, then the value of a is :

**Options :**

3. ✔ 2

**Question Number : 25 Question Id : 47163915079 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**
**Options :**

If $2x - \frac{1}{2x} = 6$, then the value of $4x^2 + \frac{1}{4x^2}$ is :

1. ✔ 38

**Question Number : 26 Question Id : 47163915080 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

If $X + 3Y = 9$, then the value of $(X - 5)^3 + (3Y - 4)^3$ is:

**Options :**

4. ✔ 0

**Question Number : 27 Question Id : 47163915081 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

If $x + \frac{1}{x} = 5$, the value of $x^6 + \frac{1}{x^6}$ is :

**Options :**

2. ✔ 12098

**Question Number : 28 Question Id : 47163915082 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The values of x in the equation $\frac{1}{x-3} - \frac{1}{x+5} = \frac{1}{6}$ are:

**Options :**

1. ✔ 7, - 9

**Question Number : 29 Question Id : 47163915083 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

LCM and HCF of two numbers x and y are 3 and 105 respectively. If $x + y = 36$,

the value of $\frac{1}{x} + \frac{1}{y}$ is :

**Line Question Option : No Option Orientation : Vertical**

**Options :**

4. ✔ $\frac{4}{35}$

**Question Number : 30 Question Id : 47163915084 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**

The age of a man is three times of the age of his son. After 5 years the double of father's

age will be five times the age of the son. The present ages of man and his son in years

are respectively:

**Options :**

4. ✔ 45, 15

**Question Number : 31 Question Id : 47163915085 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

Ritu can row downstream 20 km in 2 hours and upstream 4km in 2 hours. The speed

of the Current in km/h is:

**Line Question Option : No Option Orientation : Vertical**

**Options :**

2. ✔ 4

**Question Number : 32 Question Id : 47163915086 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

There are three consecutive positive integers such that the sum of square of first and

product of other two is 154. Then the largest number is :

**Line Question Option : No Option Orientation : Vertical**

**Options :**

3. ✔ 10

**Question Number : 33 Question Id : 47163915087 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**

**Options :**

If x+1 and x − 2 are factors of $x^3 + ax^2 - bx - 6$, then the value of 4a+b is :

3. ✔ 13

**Question Number : 34 Question Id : 47163915088 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**

If the perimeter of certain rectangle is 76m and its area is $360m^2$,

then its shorter side is of length:

**Options :**

3. ✔ 18m

**Question Number : 35 Question Id : 47163915089 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

A fraction becomes $\frac{1}{2}$ on subtracting 1 from numerator and adding 2 to the

denominator and reduces to $\frac{1}{3}$ on subtracting 7 from numerator and 2 from

denominator. The fraction is :

**Line Question Option : No Option Orientation : Vertical**

**Options :**

4. ✔ $\dfrac{15}{26}$

**Question Number : 36 Question Id : 47163915090 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If A, B and C are three sets, then A − (B − C) equal to:

**Options :**

1. ✔ $(A − B) \cup (A \cap C)$

**Question Number : 37 Question Id : 47163915091 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

If $X = \{8^n - 7^n - 1 : n$ is a natural number $\}$ and

$Y = \{49(n − 1): n$ is a natural number$\}$, then

**Line Question Option : No Option Orientation : Vertical**

**Options :**

1. ✔ $X \subset Y$

**Question Number : 38 Question Id : 47163915092 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes**

**Single Line Question Option : No Option Orientation : Vertical**

In a survey of 600 students, 150 students were found to be taking tea and 225 taking

Coffee, 100were taking both tea and coffee. How many students were neither taking

tea or coffee?

**Options :**

3. ✔ 325

**Question Number : 39 Question Id : 47163915093 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The number of real solutions of the equation

$X - \dfrac{3}{x^2 - 9} = 3 - \dfrac{3}{x^2 - 9}$ is:

**Options :**

2. 1

**Question Number : 40 Question Id : 47163915094 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

A solution is to be kept between 68°F and 77°F. The range of temperature in degree Celsius (°C),

if the celcius/fawrenheet conversion formula is F $\dfrac{9C}{5}$ + 32, is between

**Options :**

2. ✔ 20°C and 25°C

**Question Number : 41 Question Id : 47163915095 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The system of linear equations 2x+y = 6, x+y = 6, 2x-y = 3 has

**Options :**

3. ✔ no solution

**Question Number : 42 Question Id : 47163915096 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

If m, n are roots of the equation $x^2-3x+p=0$ and $m^3+n^3 = 81$ then p is equal to

**Options :**
 DELETED

**Question Number : 43 Question Id : 47163915097 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The value of $(6^{-1} - 7^{-1})^{-1} - (2^{-1} - 3^{-1})^{-1}$ is :

**Options :**
2. ✔ $36$

**Question Number : 44 Question Id : 47163915098 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

If $3\cos\theta + Sin\theta = 2\sqrt{2}$, the value of $3 Sin\theta - Cos\theta$ is:

**Options :**
2. ✔ $\sqrt{2}$

**Question Number : 45 Question Id : 47163915099 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

If $\cos^2\theta + \cos\theta = 1$, then $Sin^6\theta + 1$ is equal to

**Options :**
2. ✔ $2 Cos\theta$

**Question Number : 46 Question Id : 47163915100 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The value of $Cos^2\frac{2\Pi}{6} + Cosec\frac{\Pi}{6} + 3\tan^2\frac{\Pi}{6}$ is

**Options :**
 DELTED

**Question Number : 47 Question Id : 47163915101 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The maximum value of $2 Cos x + 3 Sin x$ is

**Options :**
3. ✔ $\sqrt{13}$

**Question Number : 48 Question Id : 47163915102 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**
**Options :**

If $Cos^4\theta + Sin^2\theta = m$, then
3. ✔ $\frac{3}{4} \le m \le 1$

**Question Number : 49 Question Id : 47163915103 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The value of $Cos\, x° - Sin x° \,(0 \le x < 45)$ is

**Options :**
2. ✔ Positive

**Question Number : 50 Question Id : 47163915104 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A vertical pole of height 10 m stands on one corner of a rectangular field. The angle of Elevation of its top from the farthest corner is $30°$ while that from *another corner is* $60°$. The area in m$^2$ of rectangular field is

**Options :**

1. ✔ $\dfrac{200}{3}\sqrt{2}$

**Question Number : 51 Question Id : 47163915105 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The value of $\tan 1° \; \tan 2° \; \tan 3° \ldots \ldots \tan 89°$ *is*

**Options :**

2. ✔ $1$

**Question Number : 52 Question Id : 47163915106 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If $\text{Sin}\theta + \text{Cos}\theta = \sqrt{3}$, *then the value of* $\tan\theta + \text{Cos}\theta$ *is*

**Options :**

3. ✔ $1$

**Question Number : 53 Question Id : 47163915107 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If angles of elevation of the top of a tower from two points distant s and t from its foot are Complementary. Then the height of tower is:

**Options :**

2. ✔ $\sqrt{st}$

**Question Number : 54 Question Id : 47163915108 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

From an external point P tangents PA and PB are drawn to a circle with center 0. If CD is a tangent to the circle at a point E intersecting PA at C and PB at D, also if PB = 16 cm, AC =7cm and CD=12 cm, then the perimeter of the triangle PCD is

**Options :**

1. ✔ 32cm

**Question Number : 55 Question Id : 47163915109 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A point is selected at random inside a rectangle and perpendiculars are drawn on each side of the rectangle from the point. If sum of these perpendiculars is 32cm, the perimeter of the rectangle is:

**Options :**

2. ✔ 64 cm

**Question Number : 56 Question Id : 47163915110 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

In the triangle ABC, AB = AC, D and E are points on AC and AB so that AD=DE=EC=BC. Then $\angle A$ is equal to

**Options :**

4. ✔ $25\frac{5}{7}°$

**Question Number : 57 Question Id : 47163915111 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The angle subtended by a chord of a circle at the centre is 60°. The ratio between chord and diameter of the circle is:

**Options :**

2. ✔ 1:2

**Question Number : 58 Question Id : 47163915112 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

D, E, F are respectively the mid points of sides BC, CA, AB of a triangle ABC. The ratio of the areas of triangle DEF and triangle ABC is:

**Options :**

3. ✔ 1:4

**Question Number : 59 Question Id : 47163915113 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The rain water from a roof 22m x 20m drains into a cylindrical vessel having base diameter 2m and height 3.5m. If the vessel is just full, the rainfall in cm is

(use $\pi = \frac{22}{7}$)

**Options :**

2. ✔ 2.5

**Question Number : 60 Question Id : 47163915114 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

If the diagonal of a rectangle is 3 times of its smaller side, then ratio of its sides is:

**Line Question Option : No Option Orientation : Vertical**

**Options :**

3. ✔ $2\sqrt{2}:1$

**Question Number : 61 Question Id : 47163915115 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The surface areas of two spheres are in the ratio 9:4. The ratio of their volumes is:

**Options :**

2. ✔ 27:8

**Question Number : 62 Question Id : 47163915116 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

In an equilateral triangle ABC, D is a point on side BC such that BD = $\frac{1}{3}$BC. Then AD$^2$ : AB$^2$ is

**Options :**

3. ✔ 7:9

**Question Number : 63 Question Id : 47163915117 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

A Chord of length 14 cm is at a distance of 6 cm from the center of a circle. The

length of another Chord at a distance 2 cm from the center is:
**Line Question Option : No Option Orientation : Vertical**

**Options :**

1. ✔ 18 cm

**Question Number : 64 Question Id : 47163915118 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

If one angle of a triangle is 130°, then the angle between bisectors of the other two

angles will be
**Line Question Option : No Option Orientation : Vertical**
**Options :**

4. ✔ 155°

**Question Number : 65 Question Id : 47163915119 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

Three circles with centers A, B, C touch each other externally. If AB = 5 cm, BC =

7cm and CA = 6cm, then the radius of the circle with center A is:

**Options :**

2. ✔ 2.0 cm

**Question Number : 66 Question Id : 47163915120 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

In triangle ABC, AB = 9 cm, BC = 40 cm and CA = 41 cm, then the triangle is

**Options :**

1. ✔ Right angled

**Question Number : 67 Question Id : 47163915121 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

The angle between the hands of a clock at 3:40 would be

**Options :**

1. ✔ 130°

**Question Number : 68 Question Id : 47163915122 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

If the radius of a circle is increased by 25%, then its area will increase by
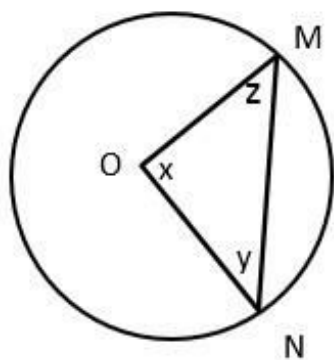
**Options :**

4. ✔ 56.25%

**Question Number : 69 Question Id : 47163915123 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

In the figure MN > NO, which of the following is not true ?

**Options :**

3. ✔ X = Y+Z

**Question Number : 70 Question Id : 47163915124 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

From a point in the interior of an equilateral triangle, the perpendicular distances of

the sides are $\sqrt{3}\,cm, 2\sqrt{3}\,cm$ and $5\sqrt{3}\,cm$. The perimeter of the triangle is:

**Options :**

2. ✔ 48 cm

**Question Number : 71 Question Id : 47163915125 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

In a circle of radius 5 cm, if AB and AC are two equal chords of length 6 cm each, then

the length of BC is

**Options :**

4. ✔ $\frac{48}{5}$ cm

**Question Number : 72 Question Id : 47163915126 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

ABCD is a trapezium in which AB is parallel to DC. If AC, BD interest at o, area of

$\Delta AOD = 4\ cm^2$ and area of $\Delta BCD = 7\ cm^2, then\ area\ of\ \Delta CDO\ is$

**Options :**

4. ✔ $3\ cm^2$

**Question Number : 73 Question Id : 47163915127 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

In a parallelogram ABCD, AB = 12 cm, BC=14 cm and BD = 20 cm then

AC is equal to:

**Options :**

4. ✔ $2\sqrt{70}cm$

**Question Number : 74 Question Id : 47163915128 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If area of a square inscribed in a semicircle is $2cm^2$ then the area of the square

inscribed in the full circle of same radius is:

**Options :**

1. ✔ $5\ cm^2$

**Question Number : 75 Question Id : 47163915129 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A circle C is inscribed in a square S. An equilateral triangle T is drawn inside C with its Vertices on C. If the area of S is k times the area of T, then k is equal to:

**Options :**

1. ✅ $\dfrac{16}{3\sqrt{3}}$

**Question Number : 76 Question Id : 47163915130 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

In the right triangle ABC, D is midpoint of the diagonal AC and < BCD = 40°,

Then < BDA is equal to:

**Options :**

4. ✅ 80°

**Question Number : 77 Question Id : 47163915131 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

Internal angle bisectors of a parallelogram enclose a

**Options :**

2. ✅ Rectangle

**Question Number : 78 Question Id : 47163915132 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

Three sides of an isosceles triangle are represented by x – 1, 9 – x and 5x – 3.

How many such triangles are possible?

**Options :**

2. ✅ 1

**Question Number : 79 Question Id : 47163915133 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The length of canvas 1.1m wide, required to build a conical tent of height 14m and

floor Area 346.5 m². is (Use $\pi=\dfrac{22}{7}$)

**Options :**

2. ✅ 525m

**Question Number : 80 Question Id : 47163915134 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A solid cylinder with radius 7 cm has total surface area 440 cm². Height of the

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

**Options :**

2. ✅ 3 cm

**Question Number : 81 Question Id : 47163915135 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

Which triangle with its sides given below is not possible?

**Options :**

4. ✔ $6^3, 7^3, 9^3$

**Question Number : 82 Question Id : 47163915136 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If each side of a cube is reduced by 10%, its volume will be decreased by:

**Options :**

1. ✔ 27.1%

**Question Number : 83 Question Id : 47163915137 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The surface of water in a swimming pool when it is full of water, is rectangular of dimension 36m x 10.5m. The depth of water increases uniformly from 1m to 1.75m from one end to another end. The water in the pool is emptied by a cylindrical pipe of radius 7cm at the rate of 5km/h. The time to empty water in pool is (Use $\pi = \frac{22}{7}$)

**Options :**

3. ✔ $6\frac{3}{4}$ hrs

**Question Number : 84 Question Id : 47163915138 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A milk container of height 16 cm is made of metal sheet in the form of frustum of a cone with radii of its lower and upper ends as 10cm and 20 cm respectively. The cost of milk at the rate of ₹ 60 per liter which the container can hold, is (Use $\pi = \frac{22}{7}$)

**Options :**

1. ✔ ₹ 704

**Question Number : 85 Question Id : 47163915139 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

There is no spacing between the bars of a
**Line Question Option : No Option Orientation : Vertical**

**Options :**

1. ✔ Histogram

**Question Number : 86 Question Id : 47163915140 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

The median of 11 observations is 50. If one of the observations 25 is replaced by 48, the median of the new set of observations will be increased by
**Line Question Option : No Option Orientation : Vertical**

**Options :**

3. ✔ 0

**Question Number : 87 Question Id : 47163915141 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The ages of 8 family members in years are 2,5,11,31,59,8,55,35.

The median of the Ages in years is

**Options :**

1. ✔ 21

**Question Number : 88 Question Id : 47163915142 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The value of $\frac{1}{n}\{ x_1 - A) + (x_2 - A) + \ldots + (x_n - A) \}$ is Zero, if A is
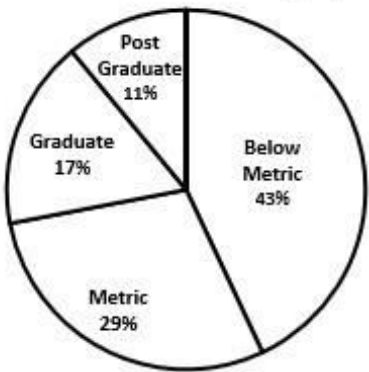
**Options :**

3. ✔ Arithmetic mean

**Question Number : 89 Question Id : 47163915143 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The mean of the following cumulative frequency distribution is:

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Cumulative Frequency | 3 | 13 | 22 | 29 | 32 | 33 |

**Options :**

2. ✔ 3.00

**Question Number : 90 Question Id : 47163915144 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The mean weight of students of a class is 38 kg. The average weight of boys and girls

are respectively 42 kg and 33 kg. If number of boys is 25, then the number of girls is:

**Options :**

DELETED

**Question Number : 91 Question Id : 47163915145 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

Two variables X and Y are related by the relation 2X+3Y-5 = 0 and the mean of

X is 2. Then the mean of Y is:

**Options :**

1. ✔ $\frac{1}{3}$

**Question Number : 92 Question Id : 47163915146 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**
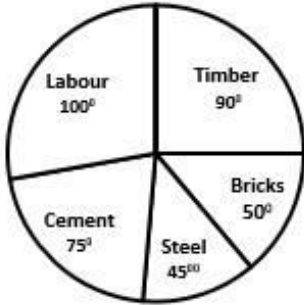
CoThe adjoining pie-chart shows qualification of employees of a company. If number of

Post graduate is 55, the number of employees having education below graduation is:

3. ✔ 360

Options :
Question Number : 93 Question Id : 47163915147 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

The adjoining pie-chart gives the expenditure on different items in a house

construction. The percentage expenditure on labour is:
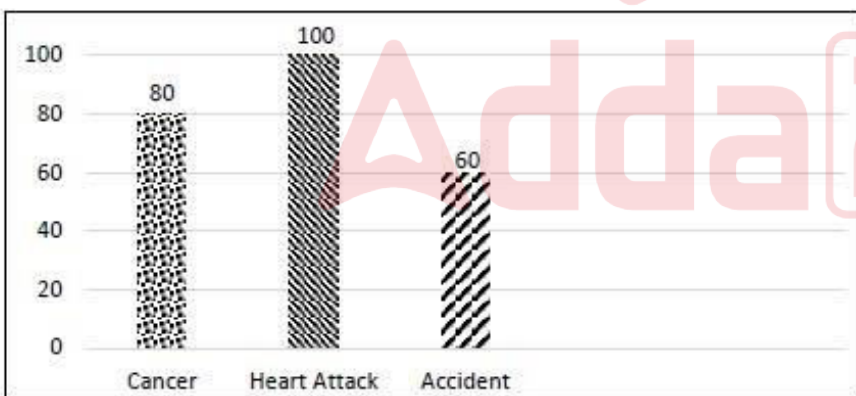


Options :

1. ✔ $\dfrac{250}{9}$

Question Number : 94 Question Id : 47163915148 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

The average of a number, 50% of the number and 25% of the number is 280, then the

Number is:

Options :

2. ✔ 480

Question Number : 95 Question Id : 47163915149 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

The number of deaths in a month of a city are represented as below



After converting this data Into a pie chart the central angle of the number of deaths

Due to heart – attack will be:

Options :

3. ✔ 150°

Question Number : 96 Question Id : 47163915150 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0.33

Consider the histogram and frequency polygon of the same frequency distribution. If

$A_h$ is the area of histogram and $A_f$ is the area of frequency polygon, then

Options :

1. ✔ $A_h = A_f$

**Question Number : 97 Question Id : 47163915151 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The mean marks of 30 students in a class is 58.5. Later on it was found that the marks

75 was wrongly recorded as 57. The correct mean is

**Options :**

4. ✔ 59.1

**Question Number : 98 Question Id : 47163915152 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The mean of a, b, c, d is 50. If A = a-5, B = b-10, C = c-25 and D = d-40, then the

mean of A, B, C, D is

**Options :**

2. ✔ 30

**Question Number : 99 Question Id : 47163915153 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If in a grouped data median is 50 and each frequency is multiplied by 3, then the new

Median is

**Options :**

3. ✔ 50

**Question Number : 100 Question Id : 47163915154 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The mode of the given data 5, 7, 9, 3, 7, 3, 7, 5, 7 is

**Options :**

3. ✔ 7

**Question Number : 101 Question Id : 47163915155 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

If the numbers 54963 * 6 is divisible by 8, then the value of * is:

**Options :**

2. ✔ 3

**Question Number : 102 Question Id : 47163915156 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

Two numbers are in ratio 3:4. If their LCM is 108, then their HCF will be

**Options :**
**3. 9**

**Question Number : 103 Question Id : 47163915157 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

$\sqrt{20 - \sqrt{20 - \sqrt{20 - \sqrt{20 - \cdots}}}}$ upto '∞' is equal to:

**Options :**
**2.4**

**Question Number : 104 Question Id : 47163915158 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The enhanced salary of man becomes Rs.24000 after 20% increment. His previous salary was

**Options :**

3. ✔ Rs.20000

**Question Number : 105 Question Id : 47163915159 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If a sum of money of simple interest doubles in 12 years, the rate of interest per annum is:

**Options :**

2. ✔ $8\frac{1}{3}\%$

**Question Number : 106 Question Id : 47163915160 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The cost price of 36 books is equal to the selling price of 30 books. The gain percent is:

**Options :**

1. ✔ 20%

**Question Number : 107 Question Id : 47163915161 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The ratio of the ages of two boys is 3:4. After 3 years, the ratio will be 4:5. The ratio of their ages after 21 years will be

**Options :**

4. ✔ 10:11

**Question Number : 108 Question Id : 47163915162 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If a and b are real numbers and $\log_e \frac{a}{b} + \log_e \frac{b}{a} = \log_e (a+b)$, then

**Options :**

1. ✔ a+b = 1

**Question Number : 109 Question Id : 47163915163 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If $3x^3 + x^2 - 12x - 4$ is divided by (x-3), then remainder is :

**Options :**

2. ✔ 50

**Question Number : 110 Question Id : 47163915164 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

Number of solutions of simultaneous equations 2x-3y = 5, 6x-9y = 10 is/are

**Options :**

4. ✔ No solution

**Question Number : 111 Question Id : 47163915165 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The roots of equation $x^2 - 10x - 24 = 0$ are:

**Options :**

3. ✔ -2, 12

**Question Number : 112 Question Id : 47163915166 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The g.c.d. (greatest common divisor) of $x^2-9x+20$ and $x^2-10x+24$ is:

**Options :**

1. ✔ X -4

**Question Number : 113 Question Id : 47163915167 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If A and B are two non-empty sets, then which one of the following is not correct

**Options :**

2. ✔ (A∪B)' = A'∪B'

**Question Number : 114 Question Id : 47163915168 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

For any two sets A and B, (A-B) ∪ (B-A) is equal to:

**Options :**

4. ✔ (A∪B) − (A ∩ B)

**Question Number : 115 Question Id : 47163915169 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The value of $\frac{9x(81)^{3/4}}{(27)^{2/3}}$ is :

**Options :**

1. ✔ 27

**Question Number : 116 Question Id : 47163915170 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

If $Sin\theta = \frac{3}{5}$ and $\theta$ is acute angle, then $2\ cos\theta\ is\ equal\ to$:

**Options :**

3. ✔ $\frac{8}{5}$

**Question Number : 117 Question Id : 47163915171 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A ladder leaning against a vertical wall makes an angle of $60^0$ with the horizontal ground.

The foot of the ladder is 3 metre away from the Wall. Then length of the ladder is:

**Options :**

1. ✔ 6 metre

**Question Number : 118 Question Id : 47163915172 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The length of the shadow of a vertical tower on the level ground increases by 10 metre

when the attitude of the sun changes from $45^0$ to $30^0$. The height of the tower is:

**Options :**

2. ✔ $5(\sqrt{3} + 1)$ metre

**Question Number : 119 Question Id : 47163915173 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

The height of a tower is $100\sqrt{3}$. The angle of elevation of a tower from a distance 100 metre from its feet is:

**Options :**

3. ✔ $60^0$

**Question Number : 120 Question Id : 47163915174 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

For a triangle ABC, D and E are two points on AB and AC such that AD=$\frac{1}{3}$ AB and AE=$\frac{1}{3}$ AC. If BC = 15 c.m., then DE is:

**Line Question Option : No Option Orientation : Vertical**
**Options :**

2. ✔ 5 cm

**Question Number : 121 Question Id : 47163915175 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

If the angle between two radii of a circle is $70^0$ then the angle between the tangents at the ends of the radii is:

**Options :**

4. ✔ $110^0$

**Question Number : 122 Question Id : 47163915176 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

In a circle, PT is the tangent to the circle with centre 0 such that OT = 6 cm, ∠OTP = $60^0$ and P is a point on the circle, then the length of PT is:

**Line Question Option : No Option Orientation : Vertical**

**Options :**

3. ✔ 3 cm

**Question Number : 123 Question Id : 47163915177 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

Let AD and BE are two medians of triangle ABC. If OD = 4 cm, where O is the centroid of the Triangle ABC, then AD is equal to:

**Line Question Option : No Option Orientation : Vertical**

**Options :**

3. ✔ 12 cm

**Question Number : 124 Question Id : 47163915178 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

If in a parallelogram ABCD, ∠ABC = 60°, **then** ∠DAB is equal to:
**Line Question Option : No Option Orientation : Vertical**

**Options :**

3. ✔ 120°

**Question Number : 125 Question Id : 47163915179 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**

If angles of a triangle are in the ratio 2:3:4, then the smallest angle of the triangle is:

**Options :**

2. ✔ $40^0$

**Question Number : 126 Question Id : 47163915180 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**
**Line Question Option : No Option Orientation : Vertical**

The slope of a line perpendicular to the line 6x-4y+3 = 0 is:

**Options :**

3. ✔ $-\dfrac{2}{3}$

**Question Number : 127 Question Id : 47163915181 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The area of a triangle formed by co-ordinate axes and the line 4x + 3y = 12 is

(in square unit)

**Options :**

1. ✔ 6

**Question Number : 128 Question Id : 47163915182 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

If the height and the radius of the base of a cone are each increased by 100%, then the

volume of cone becomes

**Line Question Option : No Option Orientation : Vertical**

**Options :**

4. ✔ Eight times that of original

**Question Number : 129 Question Id : 47163915183 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

A solid sphere is melted and recast into a right circular cone with a base radius equal to the

radius of sphere.  The ratio of the height and radius of cone so formed is:

**Line Question Option : No Option Orientation : Vertical**

**Options :**

2. ✔ 4:1

**Question Number : 130 Question Id : 47163915184 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

The cost of painting the whole surface area of a cube at the rate of 17 paise per cm$^2$ is

Rs.146.88. Then diagonal of the cube is:

**Options :**

1. ✔ $12\sqrt{3}$ cm

**Question Number : 131 Question Id : 47163915185 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

A Conical circus tent is to be made of Canvas.  The height of tent is 24 metre and the

radius of base is 7 metre. If $\pi = \dfrac{22}{7}$, then the canvas required is :

**Options :**

3. ✔ $550 \; metre^2$

**Question Number : 132 Question Id : 47163915186 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

If the sum of three adjacent sides and the total surface area of the rectangular box are 15

cm and 100 cm$^2$ respectively, then the maximum length of the stick that can be placed in

the box is:

**Options :**

4. ✔ $5\sqrt{5} \; cm$

**Question Number : 133 Question Id : 47163915187 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

A hemispherical bowl 30 cm in diameter holds water twentyfive times as much a

cylindrical tube. If the height of tube is 10 cm, then the diameter of the tube is:

**Options :**

2. ✔ 6 cm

**Question Number : 134 Question Id : 47163915188 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

Three cubes of Volume 1 cm³ ·216 cm³ and 512 cm³ are melted to form a new cube.  The

diagonal of the new cube is:

**Options :**

2. ✔ $9\sqrt{3}\ cm$

**Question Number : 135 Question Id : 47163915189 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

A 7 metre wide path is to be made around a circular garden having a diameter of 14 metre.

The area of path in square metre will be:

**Options :**

4. ✔ 462

**Question Number : 136 Question Id : 47163915190 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

If area of a circle is 7 times of its perimeter (numerically), then perimeter of circle is:

**Line Question Option : No Option Orientation : Vertical**

**Options :**

3. ✔ 88 unit

**Question Number : 137 Question Id : 47163915191 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

One side of a parallelogram is 28 cm and its distance from opposite side is 18 cm, then

area of Parallelogram is:

**Line Question Option : No Option Orientation : Vertical**

**Options :**

2. ✔ 504 cm²

**Question Number : 138 Question Id : 47163915192 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

If each side of a square is increased by 10%, then its area is increased by

**Options :**

3. ✔ 21%

**Question Number : 139 Question Id : 47163915193 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

The volume of a cylinder whose curved surface area is 1408 cm² and height is 16 cm, will be:

**Line Question Option : No Option Orientation : Vertical**

**Options :**

2. ✔ 9856 cm³

**Question Number : 140 Question Id : 47163915194 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

If a copper wire is bend to make a square whose area is 324 cm². If the same wire is bent

to form a semi – circle, then the radius of semi-circle is:

**Options :**

2. ✔ 14 cm

**Question Number : 141 Question Id : 47163915195 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

If area of an equilateral triangle is $4\sqrt{3}$cm², then length of each side of the triangle is:

**Options :**

2. ✔ 4 cm

**Question Number : 142 Question Id : 47163915196 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

A square and an equilateral triangle have same base, then the ratio of areas of them is:
**Line Question Option : No Option Orientation : Vertical**

**Options :**

2. ✔ $4:\sqrt{3}$

**Question Number : 143 Question Id : 47163915197 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

The mean of first five prime numbers is:
**Line Question Option : No Option Orientation : Vertical**

**Options :**

2. ✔ 5.6

**Question Number : 144 Question Id : 47163915198 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

The following observations are arranged in ascending order. If median of the data is 25,

Then value of x is:

17, x, 24, x+7, 35, 36, 46.
**Line Question Option : No Option Orientation : Vertica**

**Options :**

2. ✔ 18

**Question Number : 145 Question Id : 47163915199 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single**

(Mean – Mode) = K(Mean – median), the value of K is:
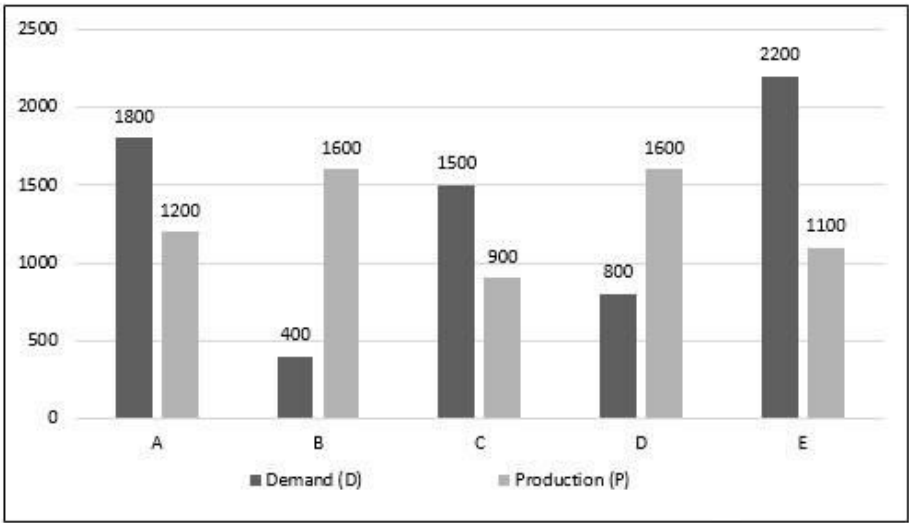**Line Question Option : No Option Orientation : Vertical**

**Options :**

3. ✔ 3

**Question Number : 146 Question Id : 47163915200 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

A,B,C,D and E. Study the graph and answer the questions, where ■ Demand and ☐ Production (in tonnes).
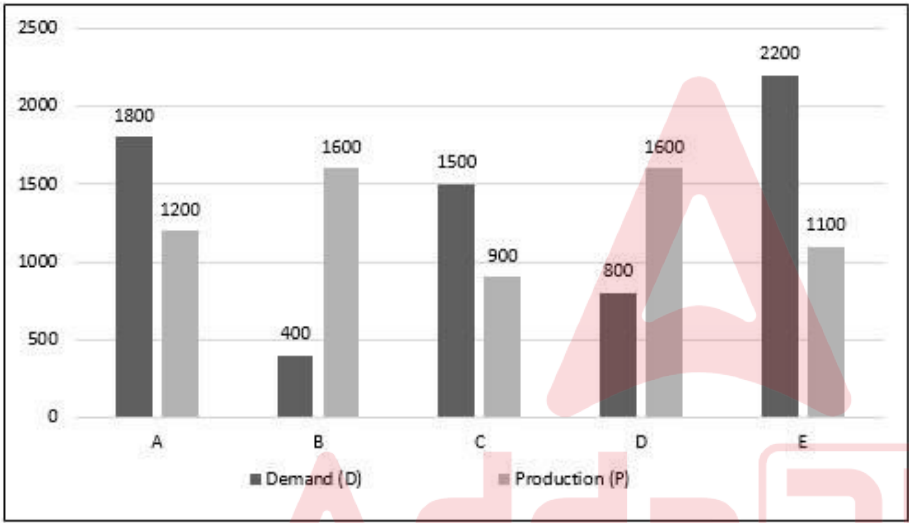


What is the ratio of the average demand and average production of these five countries?

**Options :**

2. ✔ 67:64

**Question Number : 147 Question Id : 47163915201 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

A,B,C,D and E. Study the graph and answer the questions, where ■ Demand and ☐ Production (in tonnes).



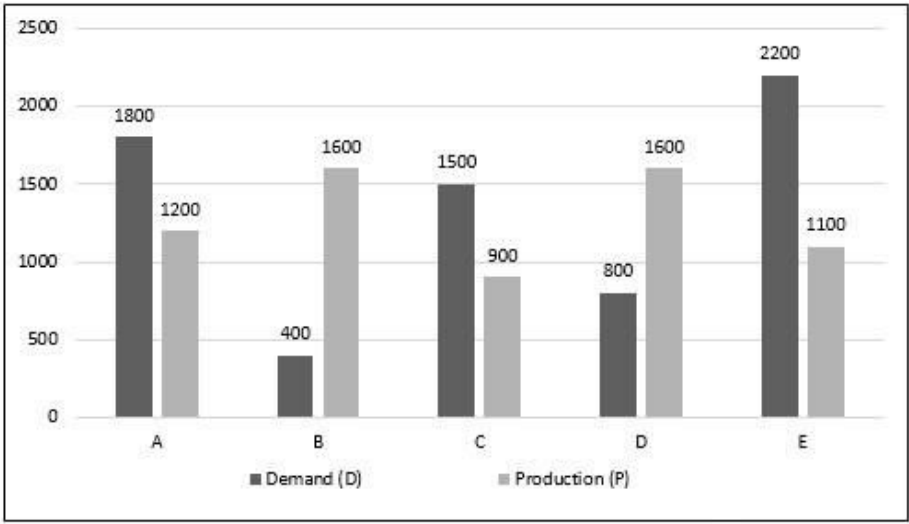The production of country D is how many times the production of Company A?

**Options :**

1. ✔ $\frac{4}{3}$ times

**Question Number : 148 Question Id : 47163915202 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0.33**

A,B,C,D and E. Study the graph and answer the questions, where ■ Demand and ☐ Production (in tonnes).
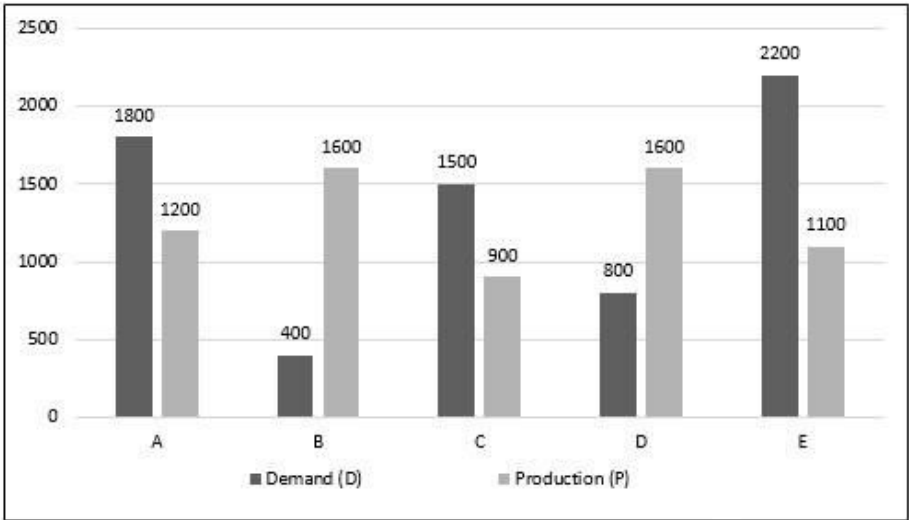


The demand of country D is what percent of that of country C

**Options :**

3. ✔ 53.33 %

**Question Number : 149 Question Id : 47163915203 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A,B,C,D and E. Study the graph and answer the questions, where ■ Demand and ☐ Production (in tonnes).
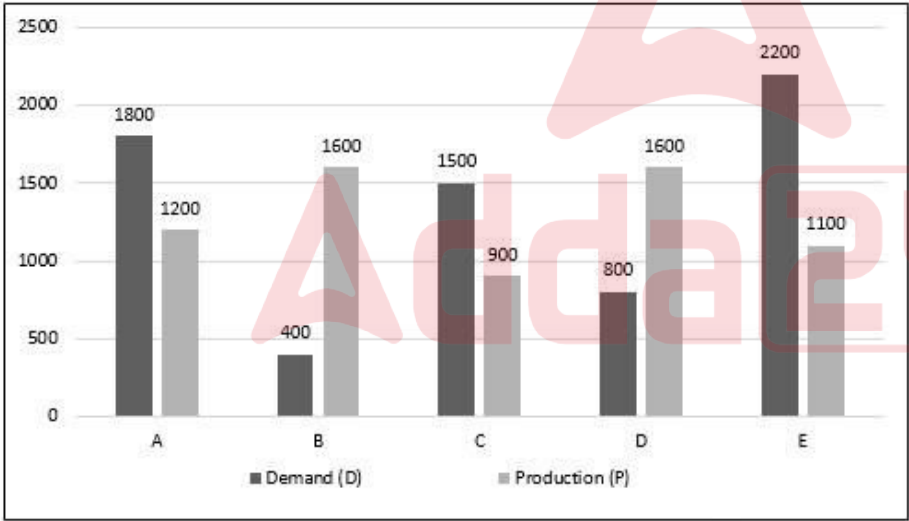


What is the ratio of the production of Country A to the total production of the remaining

four Countries?

**Options :**

1. ✔ 3:13

**Question Number : 150 Question Id : 47163915204 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0.33**

A,B,C,D and E. Study the graph and answer the questions, where ■ Demand and ☐ Production (in tonnes).



What is the difference between total demand and the total production of these five

countries?

**Options :**

4. ✔ 300 tonnes