



Exam ID: 234



Studybox Doon

RIMC Mock test 5 Maths

Name: _____

Date: _____

Exam Instructions

1. The timer has been set for the exam, and a countdown will display the remaining time. When the timer runs out, the exam will end automatically. No further action will be required after that.
2. You can flag any question that you want.
3. If you don't want to submit any of your provided answers, you can clear them.
4. If you choose to drop this exam, it will not be submitted, and no result will be generated.
5. Once you finish the exam, you cannot resume it.

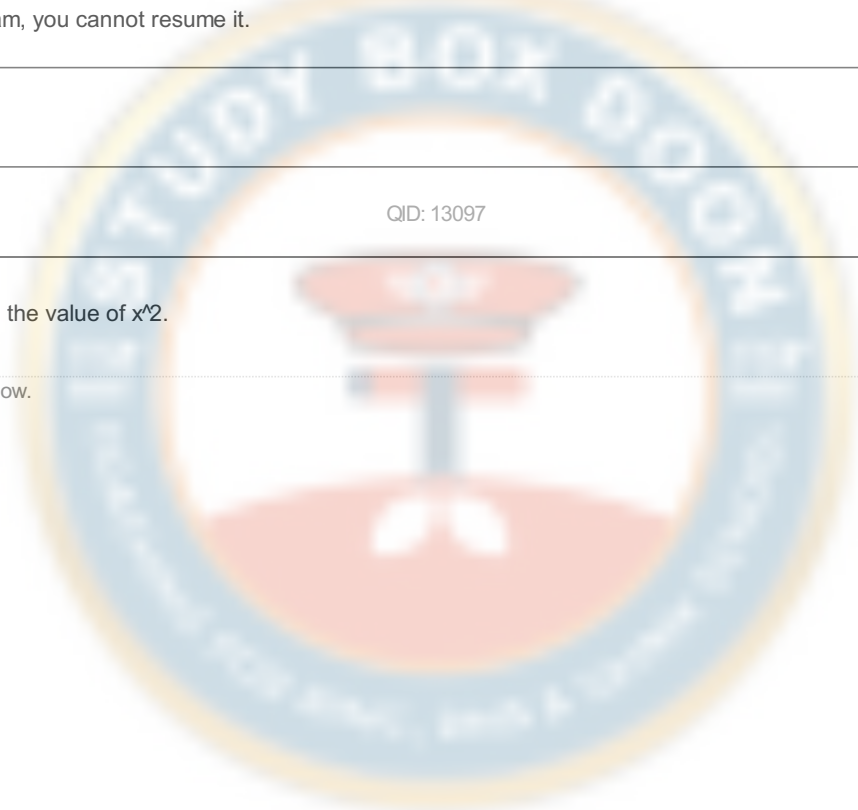
Question: 1 of 30

QID: 13097

Marks: 5

If $x = \left(\frac{3}{2}\right) \times \left(\frac{2}{3}\right)^4$, Find the value of x^2 .

Please write your answer below.



If $4x^2 + y^2 = 40$ and $xy = 6$, find the value of $2x + y$.

Please write your answer below.



Solve

$$\frac{17(1-x) - 5(x+12)}{(1-7x)} = 8$$

Please write your answer below.



How many prime numbers are there up to 100?

Please write your answer below.



What number should be added to 231228 to make it exactly divisible by 33?

Please write your answer below.



Four bells begin to toll together and toll respectively at the intervals of 5, 6, 8 and 12 seconds. How many times will they toll together in an hour excluding the one at the start?

Please write your answer below.



When a ball bounces, it rises to $\frac{2}{3}$ of the height from which it fell. If the ball is dropped from a height of 36m, how much high will it rise after the third bounce?

Please write your answer below.

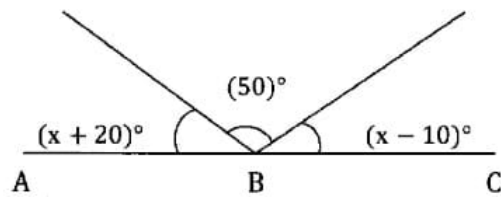


Two numbers are in the ratio 3:5. If 9 is subtracted from each number then they are in the ratio of 12:23. What is the second number?

Please write your answer below.



In the given figure ABC is a straight line. What is the value of x.



Please write your answer below.



How many 6m cubes can be cut from a cuboid measuring 36m x 15m x 8m.

Please write your answer below.



An equilateral triangle UYW is drawn inside a square STUV. What is the value of $\angle VSW$?

Please write your answer below.



After allowing a discount of 11.1% a trader still makes a gain of 14.28%. At what percentage above the cost price does he marks on his goods.

Please write your answer below.

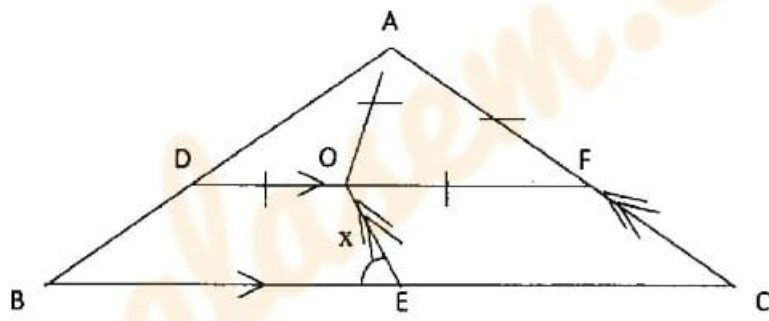


Find the smallest number of five digits exactly divisible by 16, 24, 36 and 54.

Please write your answer below.



ABC is a right-angled triangle with $\angle BAC = 90^\circ$. $AF = OA = OD = OF$. $EO \parallel CA$ and $DO \parallel BC$. Find $\angle x$.



Please write your answer below.



A man buys dry fruits at Rs 100, Rs 80 and Rs 60 per kilogram. He mixes them in the ratio 3:4:5 by weight, and sells at a profit of 50%. At what price per kg does he sell the dry fruits.

Please write your answer below.

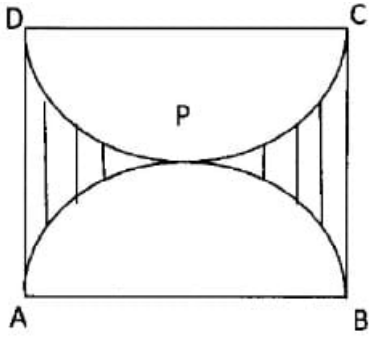


An express train travelling at 80 km/hr overtakes a goods train, twice as long and going at 40 km/hr on a parallel track, in 54 sec. How long will the express train take to cross a platform of 400m long.

Please write your answer below.



Find the area of the shaded region in fig if ABCD is a square of side 14 cm and APB and CPD are semi-circles.



Please write your answer below.



In a factory the production rose to 48400 from 40000 in 2 years. Find the rate of growth per annum.

Please write your answer below.



Find out the numbers in the boxes.

$$\begin{array}{r} \square + \square = 10 \\ + \\ \square - \square = 8 \\ = 19 \quad = 7 \end{array}$$

Please write your answer below.



What number should replace the question mark? $13 \times 13 = 16$ $24 \times 24 = 18$ $25 \times 25 = ?$

Please write your answer below.



A rectangular paper of 44 cm long and 6 cm wide is rolled to form a cylinder of height equal to width of the paper. Find the volume of the cylinder.

Please write your answer below.



A railway ticket for a child costs half the full fare but the reservation charge is the same on half tickets as much as on full ticket. One reserved a ticket for a journey between two stations at Rs. 362, one full and one half reserved tickets cost Rs. 554. What is the reservation charge?

Please write your answer below.



There are two rooms A and B at a centre of RIMC entrance examination. If 10 candidates are sent from room A to room B, the number of candidates in each room is the same. If 20 candidates are sent from room B to room A, the number of candidates in A is double the number of candidates in B. Find the number of candidates in rooms A and B.

Please write your answer below.



Find the lowest term of the expression:

$$12x^2y / 18xy^3$$

Please write your answer below.



What price did Ram mark at the printed price of a bag purchased at Rs. 380, so that after giving 5% discount, there is 25% profit?

Please write your answer below.



If 3 men or 4 women can do a piece of work in 43 days, how long will 7 men and 5 women take to complete the same work?

Please write your answer below.



The difference between the compound interest and simple interest on a certain sum of money at 10% per annum for 2 years is Rs 500. Find the sum when the interest is compounded annually.

Please write your answer below.



Length of a classroom is twice its height and its breadth is $\frac{1}{2}$ times its height. The cost of white washing the 4 walls at the rate of Rs. 1.60 per m^2 is Rs. 179.20. Find the cost of tiling floor at the rate of Rs. 6.75 per m^2 .

Please write your answer below.



A tank can be filled by two taps A and B in 12 hrs and 16 hrs respectively. The full tank can be emptied by a third tap in 8 hrs. If all the taps are turned on at the same time, in how much time will the empty tank be filled up completely?

Please write your answer below.



The following data relates to the cost of construction of a house

Item/वस्तु	Cement सीमेन्ट	Steel लोहा	Bricks ईट	Timber बांबू	Labour मजदूर	Miscellaneous अन्य
Expenditure/खर्च	30%	10%	10%	15%	25%	10%

Draw a pie-diagram to represent the above data. house.

Please write your answer below.



--- END OF QUESTION PAPER ---

Answer Key

No	Question Type	QID	Correct Answer
Question - 1	Essay (Evaluted by Admin)	13097	Essay Type Question
Question - 2	Essay (Evaluted by Admin)	13098	Essay Type Question
Question - 3	Essay (Evaluted by Admin)	13099	Essay Type Question
Question - 4	Essay (Evaluted by Admin)	13100	Essay Type Question
Question - 5	Essay (Evaluted by Admin)	13101	Essay Type Question
Question - 6	Essay (Evaluted by Admin)	13102	Essay Type Question
Question - 7	Essay (Evaluted by Admin)	13103	Essay Type Question
Question - 8	Essay (Evaluted by Admin)	13104	Essay Type Question
Question - 9	Essay (Evaluted by Admin)	13105	Essay Type Question
Question - 10	Essay (Evaluted by Admin)	13106	Essay Type Question
Question - 11	Essay (Evaluted by Admin)	13107	Essay Type Question
Question - 12	Essay (Evaluted by Admin)	13108	Essay Type Question
Question - 13	Essay (Evaluted by Admin)	13109	Essay Type Question
Question - 14	Essay (Evaluted by Admin)	13110	Essay Type Question
Question - 15	Essay (Evaluted by Admin)	13111	Essay Type Question
Question - 16	Essay (Evaluted by Admin)	13112	Essay Type Question
Question - 17	Essay (Evaluted by Admin)	13113	Essay Type Question
Question - 18	Essay (Evaluted by Admin)	13114	Essay Type Question
Question - 19	Essay (Evaluted by Admin)	13115	Essay Type Question
Question - 20	Essay (Evaluted by Admin)	13116	Essay Type Question
Question - 21	Essay (Evaluted by Admin)	13117	Essay Type Question
Question - 22	Essay (Evaluted by Admin)	13118	Essay Type Question
Question - 23	Essay (Evaluted by Admin)	13119	Essay Type Question
Question - 24	Essay (Evaluted by Admin)	13120	Essay Type Question
Question - 25	Essay (Evaluted by Admin)	13121	Essay Type Question
Question - 26	Essay (Evaluted by Admin)	13122	Essay Type Question
Question - 27	Essay (Evaluted by Admin)	13123	Essay Type Question
Question - 28	Essay (Evaluted by Admin)	13124	Essay Type Question
Question - 29	Essay (Evaluted by Admin)	13125	Essay Type Question
Question - 30	Essay (Evaluted by Admin)	13126	Essay Type Question

--- END OF ANSWER KEY ---