



Studybox Doon

RIMC Mock test 1 Maths

Exam ID: 212



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.

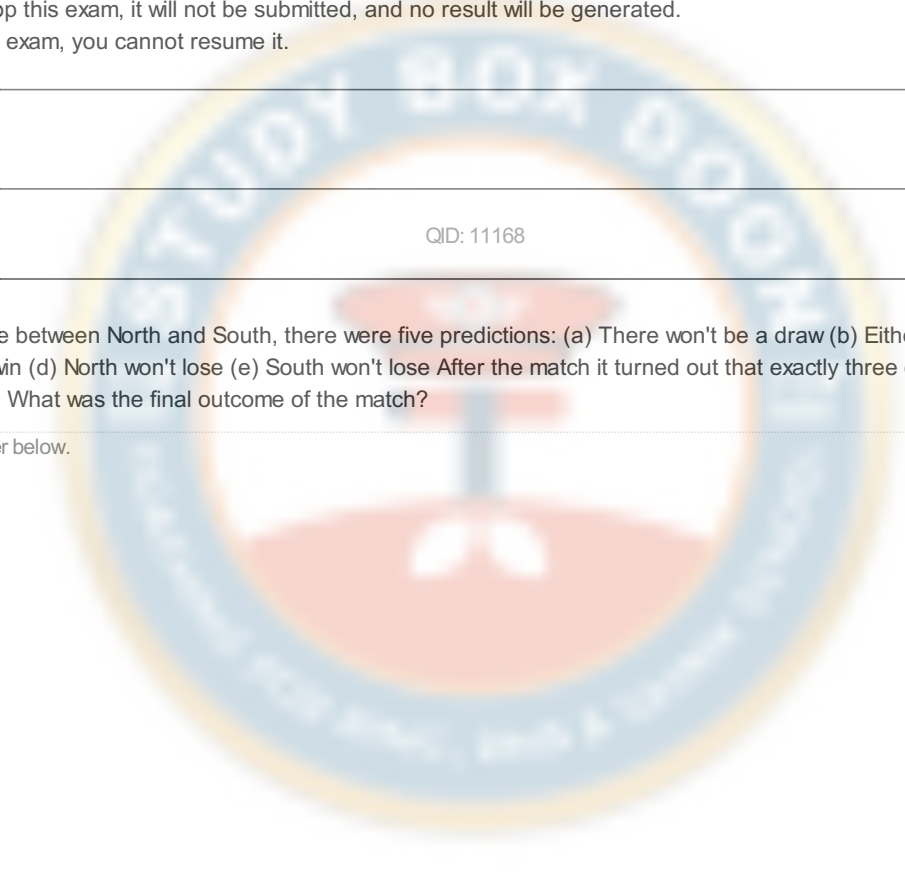
Question: 1 of 30

QID: 11168

Marks: 5

Before a soccer game between North and South, there were five predictions: (a) There won't be a draw (b) Either North will win or South will win (c) North will win (d) North won't lose (e) South won't lose After the match it turned out that exactly three of these predictions turned out to be true. What was the final outcome of the match?

Please write your answer below.



Find natural numbers x, y that satisfy the equation $x^2 - y^2 = 11$.

Please write your answer below.



List all the divisors of N where $N = 13 \times 29$.

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Please write your answer below.



Find at least one solution of the following cryptogram where each distinct letter encodes a distinct digit: $HE + HE + HE + HE + HE + HE + HE + HE + HE + HE = US$

Please write your answer below.



Find at least two pairs of natural numbers which satisfy the equation $2x^3 = y^2$.

Please write your answer below.



The year 2009 has the following property: no matter how one rearranges the digits, one cannot obtain a smaller 4-digit number (we do not allow numbers to start with zeros). What is the next year that has this property?

Please write your answer below.



An alien from a planet of TAO said “A” when he arrived on earth on Monday. On Tuesday he exclaimed: “AYY”. On Wednesday he said “AIYYAY” and on Thursday he said “AYYAYYAYY”. What will he say on Saturday?

Please write your answer below.



Every seventh mathematician is also a philosopher, and every ninth philosopher is also a mathematician. Are there more philosophers than mathematicians?

Please write your answer below.



Three diggers can dig six pits in three hours. How many pits can six diggers dig in five hours?

.....
Please write your answer below.



Consider the equation: $\frac{7}{3} = \frac{1}{2} + \frac{1}{4} + \frac{1}{x}$ Find the value of x.

Please write your answer below.



Mickey Mouse, Minnie Mouse, Goofy and Pluto are sitting on a bench. If Goofy, who is sitting in the rightmost spot, gets up and then sits down between Mickey Mouse and Minnie Mouse, then Minnie Mouse will be to the left most one. In which order are they sitting?

Please write your answer below.



The New Delhi currency exchange has the following currency rates: 11 quriks cost 14 dinars, 22 rupees cost 21 dinars, 10 rupees cost 3 thalers, and 5 krona cost 2 thalers. How many turqiks can you get for 13 kronas?

Please write your answer below.



Valentine the ostrich said she could run with a speed of 60 metres per minute. No one believed him and they were right. Valentine got confused and thought there were 60 cm in a metre and 100 seconds in a minute. So what is Valentine's real running speed in metres per second?

Please write your answer below.



At the start of the year screws, nuts and bolts were equally priced at one dollar per kg. On Feb 27th the store owner decided that screws should increase in price by 50% and bolts should decrease in price by 50%. On Feb 28th one person changed the prices of all three items. This time, the price of screws went down by 50% and the price of bolts went up by 50%. What will be the last day's price in dollars per kg of 1 kg each of screws, nuts or bolts?

Please write your answer below.



In the sequence 2,6,12,20,30....where 2 is in first place, find the number in the 6th place. Give a clear explanation.

Please write your answer below.



Alisha has a mobile phone. Its fully charged battery gives her 6 hours of talk time and 210 hours of standby time. When Alisha boarded the train the phone was fully charged but the moment she arrived at her destination, the battery ran out. How long did Alisha travel on the train, if it is known that she was talking on the phone for exactly half of her journey time?

Please write your answer below.

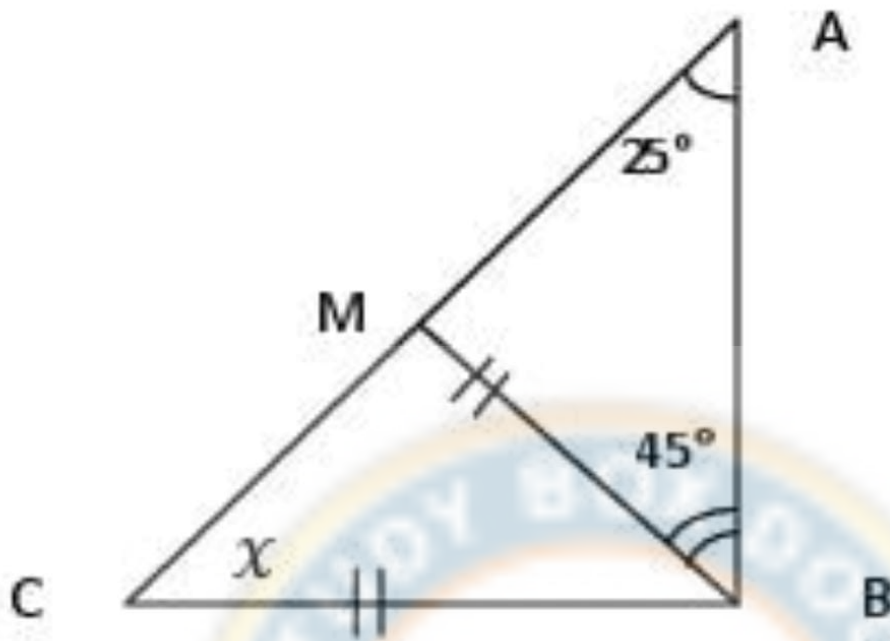


The diagonals of a parallelogram are of lengths 24 and 10 and are perpendicular to each other. Find the sides of the parallelogram and the area of the parallelogram.

Please write your answer below.

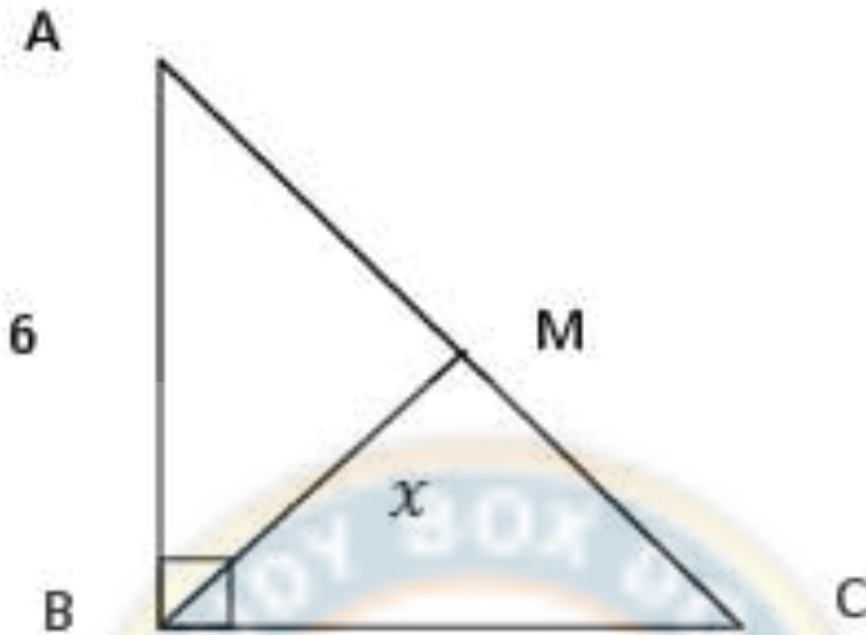


If $BC = BM$, then find the value of “ x ” in the given figure.



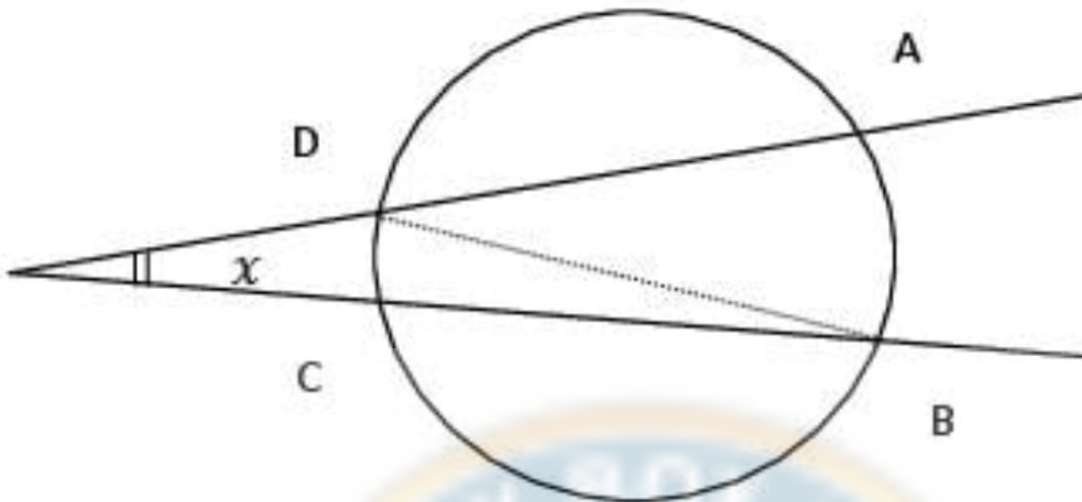
Please write your answer below.

In the right angled triangle ABC, M is midpoint of hypotenuse AC. Find "x" (length of BM).



Please write your answer below.

In the figure, Arc AB measure 120° . Arc CD measure 30° . What is "x"? ($\angle E = ?$)



Please write your answer below.

The book magic for dummies contains the following passage “If you replace each of the distinct letters in GLOBALHELLFRY with distinct digits, and you get a prime number, then the world will suffer a terrible heat wave.” Prove that such a heat wave can never occur.

Please write your answer below.



If an octopus has an even number of legs, it always tells the truth but if it has an odd number of legs, it always lies. One day a green Octopus said to a blue one, "I have eight legs, and you have six." "I have eight legs, and you have just seven," indignantly replied the blue Octopus. The purple Octopus, who overheard this conversation said, "The blue Octopus does really have eight legs!" agreed the purple Octopus, who boasted, "And I have nine." A red Octopus joined in, saying, "None of you have eight legs. I am the only one with eight legs." Which one of these Octopuses actually has eight legs?

Please write your answer below.



There are knights and liars living on an island. The knights always tell the truth, while the liars always lie. A traveler met three islanders and asked each one of them, "How many of the other two islanders are knights?" The first one said "None", the second one said "One", and the third one said "One". What did the third one say?

Please write your answer below.

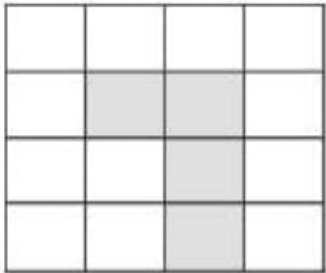


Natasha and Inna have bought two identical boxes of tea. We know that each tea bag was used to make two or three cups of tea. Natasha made 41 cups of tea from her box, and Inna managed to make 58 cups. How many tea bags were there in the box?

Please write your answer below.



Copy this diagram onto your answer book and mark out four congruent pieces such each piece contains exactly one shaded square.



Please write your answer below.



100 students live in village A, and 50 in village B, the villages are 3 Km apart. If we are trying to minimize the total distance walked by the students to their common shared school, where on the line joining AB should we build the school?

Please write your answer below.



A shop sells 5 different cups, 4 different saucers and 3 different types of spoons. In how many different ways can I purchase two items from this shop?

Please write your answer below.



How many different rearrangements are possible of the letter ABCA. List all of them.

.....
Please write your answer below.



How many perfect cubes lie between $2^81 + 1$ and $2^84 + 1$.

Please write your answer below.



A rectangle consist of 6 squares (see picture). Find the side length of the largest square if the smallest one has a side length 1.

□

Please write your answer below.



— END OF QUESTION PAPER —

Answer Key

No	Question Type	QID	Correct Answer
Question - 1	Essay (Evaluted by Admin)	11168	Essay Type Question
Question - 2	Essay (Evaluted by Admin)	11169	Essay Type Question
Question - 3	Essay (Evaluted by Admin)	11170	Essay Type Question
Question - 4	Essay (Evaluted by Admin)	11171	Essay Type Question
Question - 5	Essay (Evaluted by Admin)	11172	Essay Type Question
Question - 6	Essay (Evaluted by Admin)	11173	Essay Type Question
Question - 7	Essay (Evaluted by Admin)	11174	Essay Type Question
Question - 8	Essay (Evaluted by Admin)	11175	Essay Type Question
Question - 9	Essay (Evaluted by Admin)	11176	Essay Type Question
Question - 10	Essay (Evaluted by Admin)	11177	Essay Type Question
Question - 11	Essay (Evaluted by Admin)	11178	Essay Type Question
Question - 12	Essay (Evaluted by Admin)	11179	Essay Type Question
Question - 13	Essay (Evaluted by Admin)	11180	Essay Type Question
Question - 14	Essay (Evaluted by Admin)	11181	Essay Type Question
Question - 15	Essay (Evaluted by Admin)	11182	Essay Type Question
Question - 16	Essay (Evaluted by Admin)	11183	Essay Type Question
Question - 17	Essay (Evaluted by Admin)	11184	Essay Type Question
Question - 18	Essay (Evaluted by Admin)	11185	Essay Type Question
Question - 19	Essay (Evaluted by Admin)	11186	Essay Type Question
Question - 20	Essay (Evaluted by Admin)	11187	Essay Type Question
Question - 21	Essay (Evaluted by Admin)	11188	Essay Type Question
Question - 22	Essay (Evaluted by Admin)	11189	Essay Type Question
Question - 23	Essay (Evaluted by Admin)	11190	Essay Type Question
Question - 24	Essay (Evaluted by Admin)	11191	Essay Type Question
Question - 25	Essay (Evaluted by Admin)	11192	Essay Type Question
Question - 26	Essay (Evaluted by Admin)	11193	Essay Type Question
Question - 27	Essay (Evaluted by Admin)	11194	Essay Type Question
Question - 28	Essay (Evaluted by Admin)	11195	Essay Type Question
Question - 29	Essay (Evaluted by Admin)	11196	Essay Type Question
Question - 30	Essay (Evaluted by Admin)	11197	Essay Type Question

--- END OF ANSWER KEY ---