



Sri Sumangala College
Panadura

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Sri Sumangala College - Panadura

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1st Term Test - March 2020

ශ්‍රේණිය } 10 Grade }	විෂයය } Subject }	ගණිතය	පත්‍රය } I Paper }	කාලය } 02 hour Time }
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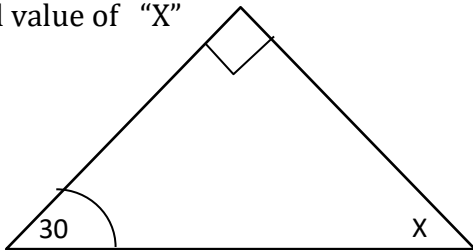
- Answer all questions on this paper itself
- Each question carries two marks

Part A

1) A person loaned Rs:25000/= for 15% of annual interest rate. Find the interest that he should pay at the end of the year.

2) Solve $\frac{x}{2} - 1 = 3$

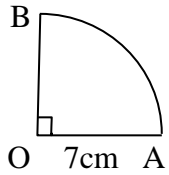
3) Find value of "X"



4) Remove the brackets and simplify
(x - 2) (x - 3)

5) Simplify $4\frac{1}{2} \div \frac{2}{3}$

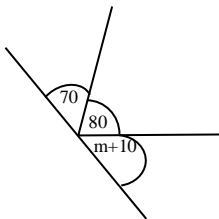
6) Find the perimeter of the given sector.



7) Girl's in the school is a half of all students and $\frac{3}{5}$ of girls are primary girls.t. What fraction of the all students are primary girls.

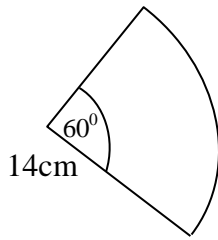
8) Fill in the cages $(x - \square)^2 = x^2 - 16x + \square$

9) Find the value of "m"

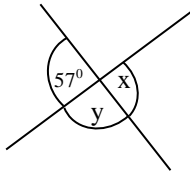


10) Find the value $\frac{3^4}{3^2}$

11) Find the area of the given sector.



12)

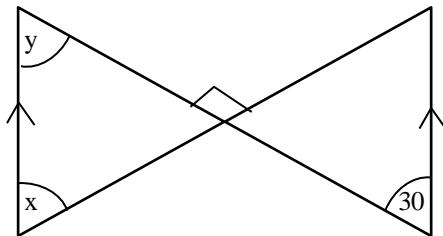


Find the value of x and y

13) How many milliliters are in $\frac{3}{8}$ of 1 l

14) Which term should be added to write as square of binomial expression for $x^2 + 6x$

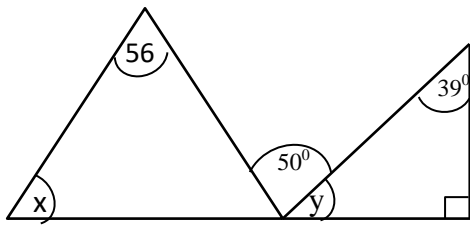
15)



Find the value of x and y

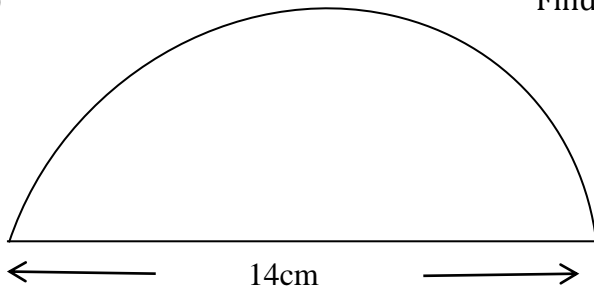
16) If length of a side of the square is unit $(3x + 2)$. Write down an expression for the area in the form $ax^2 + bx + c$

17) Find the value of x and y



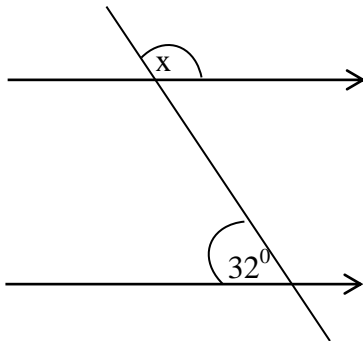
18)

Find the area of semicircular lamina.



19)

Find the value of x

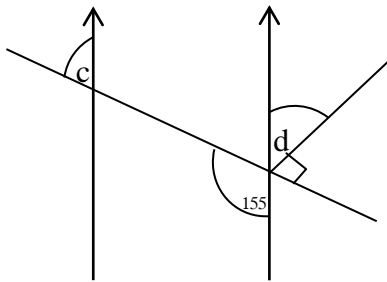


20) Simplify $[\frac{1}{2} + \frac{1}{3}]$ of $\frac{3}{5}$

21) Complete the blank of find the $\sqrt{1521}$

$$\begin{array}{r} 3 \square \\ \square \square \overline{) 3 \ 15 \ 21} \\ \underline{9} \\ 6 \ 21 \end{array}$$

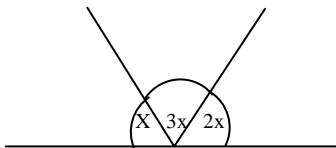
22)



Find the value of c and d

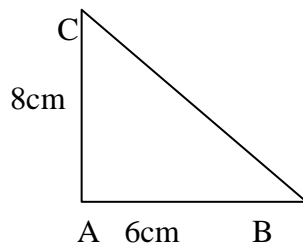
23) Factorize $a^2 - a$

24)



Find the value of x

25) Find the length of BC side.



Part B

➤ Answer all the questions on this paper itself.

1) In a certain farm, $\frac{2}{5}$ of the total number of animals are goats and $\frac{1}{9}$ of remaining are rabbits. And remaining are cows.

I) What fraction of the total number of animals are remaining animals without goats.

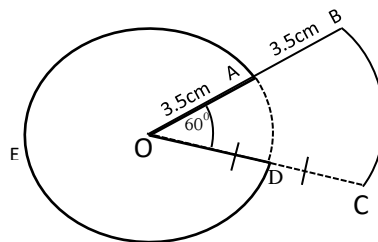
II) Find the fraction of total number of animals is number rabbits.

➤ $\frac{1}{2}$ of the cows are females.

III) What fraction of the total number of animals is number of cows in the farm?

IV) If the cows are 40 in the farm. Find the total number of animals in the farm?

2) Figure shows a metal lamina is made by joining two sectors.



I) Find the BC arc length

II) Find the perimeter of metal lamina.

III) Find area of metal lamina.

3)

I) Find the value of $2x-3y$ when $x=\frac{1}{2}$ and $y=-1$

II) Find the first approximation of $\sqrt{18}$

III) The area of square is 800cm^2 . Find the length of a side to first decimal place..

4)

I) Expand and simplify

$$\left(\frac{1}{2}x + y\right)^2$$

II) Remove the brackets

$$(2x - 3)(x - 1)$$

III) Find the value of $m^2 + n^2$ when $m+n=8$, $mn=3$

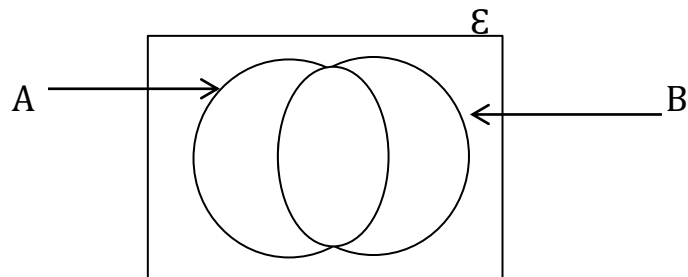
5) A and B are two sets

$A = \{\text{Factors of } 18\}$

$B = \{\text{Positive integers less than } 6\}$

I) Write down the sets A and B by listing its elements

II) Show the above sets following diagram.



III) Hence write down elements of following sets

i) $A \cap B$

ii) $A \cup B$

ii) A^I