

Std: X \_\_\_\_\_

Roll No \_\_\_\_\_

Date: 19/12/18

QI A) solve the following:

2M

- Write the converse of the following statement: the diagonals of a rectangle are congruent.
- In rhombus PQRS  $m\angle P = 2x^\circ$  &  $m\angle R = 4x - 22$   
Then find value of x

B) Solve the following:

2M

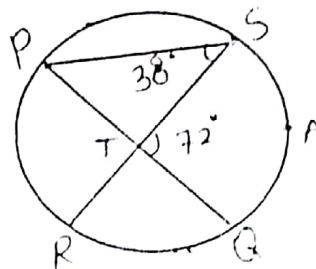
□ PQRS is a parallelogram. If  $\angle P = 65^\circ$  Find the measures of remaining angles

QII A) Solve the following:

4M

1) In  $\triangle ABC$ , seg BD bisects  $\angle ABC$  If  $AB = x-1$ ,  $BC = x+4$ ,  $AD = x-3$  and  $DC = x-1$ , then find value of x

2) Find  $m(\text{arc } SAQ)$  if  $m\angle STQ = 72^\circ$   
&  $m\angle PSR = 38^\circ$

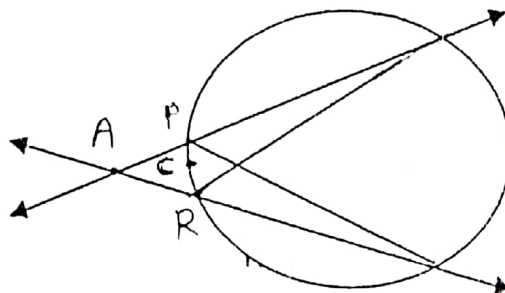


B) Solve the following:

6M

1. Construct  $\triangle PYQ$  such that  $PY = 6.3\text{cm}$ ,  $YQ = 7.2\text{cm}$  &  $PQ = 5.8\text{cm}$ . If  $\frac{YZ}{YQ} = \frac{6}{5}$   
Then construct  $\triangle XYZ$  Similar to  $\triangle PYQ$

2.  $m(\text{arc } QDS) = 130^\circ$  &  $m(\text{arc } PCR) = 40^\circ$  find  $m\angle AQP$ ,  $m\angle SRQ$  &  $m\angle SAQ$



QIII A) solve the following:

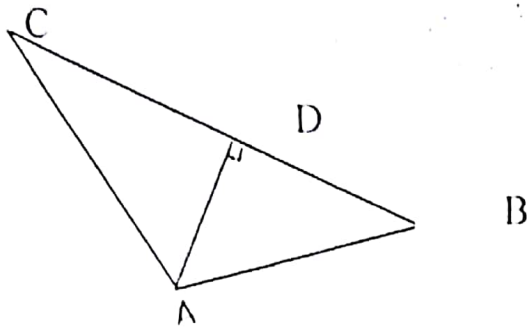
4M

In  $\triangle ABC$ , seg  $DE \parallel$  Side  $AB$ , such that  $AD = 2DC$ . If  $A(\square ABED) = 56\text{sq. units}$  then find  $A(\triangle ABC)$

B) solve the following activity based question:

2M

In  $\triangle ABC$ , seg  $AD \perp$  seg  $BC$  for proving  $AB^2 + CD^2 = BD^2 + AC^2$



- i) In right angled  $\triangle ADB$ ,  
 $\square = AD^2 + \square$  --- BY Pythagoras theorem
- ii)  $AD^2 = \square - \square$
- iii) In right angled  $\triangle ADC$   
 $\square = AD^2 + \square$  --- BY Pythagoras theorem
- iv)  $AD^2 = \square - \square$
- v)  $\square - \square = \square - \square$  (From ii & iv)
- vi)  $\square + \square = \square + \square$

----- X ----- X -----