Subject:	MATHEMATICS	*Chapter:*	**TRIGONOMETRY**				
Class:	X	*Batch:*	LOT	**LOT 2020 (M-5)**		*Date:*	06/05/2020
No. of Questions:		*Type:*	Descriptive	*Mark:*	20	*Time:*	45 mts

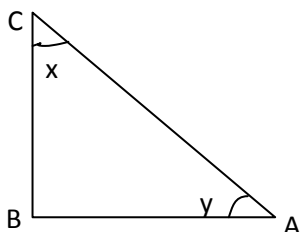1. In the figure $\angle B = 90°, \angle C = 44°$ (3)
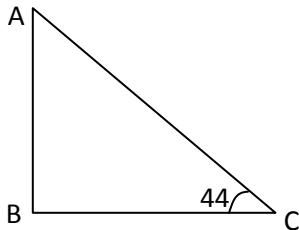
   a) What is the measure of $\angle A$?

   b) Which is the following is tan 44°?

   $\left(\dfrac{AB}{BC}, \dfrac{AB}{AC}, \dfrac{BC}{AB}, \dfrac{BC}{AC}\right)$

   c) Prove that tan 44 × tan 46 = 1

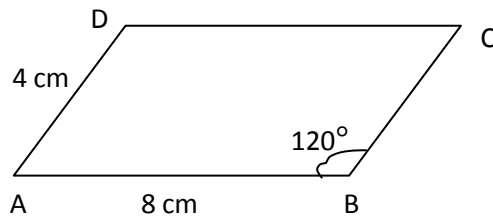2. In triangle ABC, length of AB = 6 cm, $\angle A = 70°$, $\angle B = 55°$ (4)
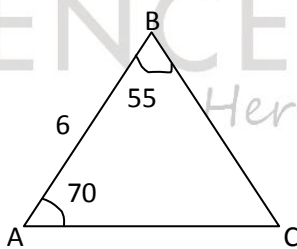
   a) Find $\angle C$?

   b) Find AC

   c) Find the area of triangle ABC (sin 70 = 0.93)

3. In the figure $\angle B = 90°$, $\angle C = x°$, $\angle A = y°$ (3)

a) What is $x + y$

b) Prove that $sinx = cos\,y$

c) If $sinx = cosx$, find the value of 'x'

4. ABCD is a parallelogram. AB = 8cm, AD = 4 cm, $\angle B = 120°$ (3)

a) What is $\angle A$?

b) What is the perpendicular distance from D to AB.

c) What is the area of ABCD.

5. A 1.75 m tall man, standing at the foot of a tower. Sees the top of a hill 40 m away at an elevation of 60° climbing to the top of the tower, he sees it at an elevation of 50°. Calculate the height of tower and the hill

(tan 60 = 1.73, tan 50 = 1.19) (5)

6. The picture below shows a circle. What is the radius of the circle. (tan 40 = 0.64) (2)