17/8/2020
MONDAY
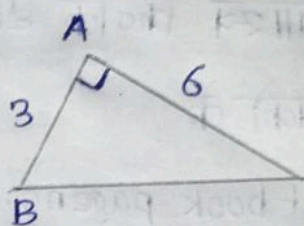
Assignment

Text book page no. 42

5) Use a calculator to determine upto two decimal places, the perimeter and the area of the circle in the picture.

Ans) The square corner of the set square is on a point on the circle. So the angle at that point is 90°. Since the numbers 3 and 6 are on the circle, the line BC joining them is the diameter of the circle.

Using Pythagoras theorem,

$$BC = \sqrt{3^2+6^2} = \sqrt{9+36} = \sqrt{45} = 6.71$$

Radius of the circle, $r = \dfrac{6.71}{2} = 3.36$ cm

Perimeter of the circle $= 2\pi r = 2 \times 3.14 \times 3.36$
$$= 21.10 \text{ cm}$$

$\therefore$ Area of the circle $= \pi r^2$
$$= 3.14 \times 3.36 \times 3.36$$
$$= 35.45 \text{ cm}^2$$