

CLASS 9 MATHS ASSIGNMENT

CHAPTER 18 TRIGONOMETRICAL RATIOS OF STANDARD ANGLES

General direction for the students :- Whatever be the notes provided , everything must be copied in the Maths Copy and then do the Home work in the same Copy.

Angle θ	$x = \cos\theta$	$y = \sin\theta$
30°	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$
60°	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$
45°	$\frac{1}{\sqrt{2}}$	$\frac{1}{\sqrt{2}}$
0°	1	0
90°	0	1

Exercise 18.1

$$\begin{aligned} 2 \text{ iii) } & \frac{4}{3} \left(\frac{1}{\sqrt{3}} \right)^2 + \left(\frac{\sqrt{3}}{2} \right)^2 - 3 \left(\frac{1}{2} \right)^2 + \frac{3}{4} (\sqrt{3})^2 - 2(1)^2 \\ & \Rightarrow \frac{4}{9} + \frac{3}{4} - \frac{3}{4} + \frac{9}{4} - 2 \\ & \Rightarrow \frac{16 + 81 - 72}{36} \Rightarrow \frac{25}{36} \end{aligned}$$

$$\begin{aligned} 7 \text{ iv) RHS, } & 4 \left(\frac{\sqrt{3}}{2} \right)^3 - 3 \left(\frac{\sqrt{3}}{2} \right) \\ & \Rightarrow \frac{3\sqrt{3}}{2} - \frac{3\sqrt{3}}{2} \\ & \Rightarrow 0 \end{aligned}$$

$$\text{LHS} = \cos(3 \times 30) = \cos 90 = 0 = \text{RHS}$$

**** For further explanation of above topic and more solutions , watch the video.

HOME WORK : Left over questions from the exercise upto question number 10.