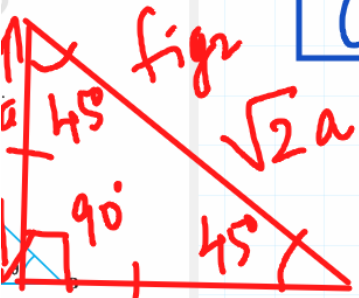


(1) $a^2 + a^2 = \text{hyp}^2$
 $\sqrt{2}a = \text{hyp}$

	0°	30°	45°	60°	90°	(Remarks)
$\sin \theta$	0	$1/2$	$1/\sqrt{2}$	$\sqrt{3}/2$	1	$\sin \theta = PP'/OP'$
$\cos \theta$	1	$\sqrt{3}/2$	$1/\sqrt{2}$	$1/2$	0	$\cos(90-\theta) = PP'/OP'$



any $OP = OR$

From fig (2)
 $\sin 45^\circ = \frac{a}{\sqrt{2}a} = \frac{1}{\sqrt{2}}$

$\sin 45^\circ = \frac{1}{\sqrt{2}}$

Similarly

$\cos 45^\circ = \frac{a}{\sqrt{2}a} = \frac{1}{\sqrt{2}}$

So, $\theta = 45^\circ$

$\sin \theta = \cos \theta = \frac{1}{\sqrt{2}}$

From fig (1) If $\theta = 0^\circ$

$\sin \theta = \frac{y}{r}$

$\sin 0^\circ = \frac{0}{r}$ $PP' = 0$ (y value on x -axis)

$\sin 0^\circ = 0$

$\sin 90^\circ = \frac{y}{r} = \frac{r}{r} = 1$
 $PP' \rightarrow OP'' = y = r$
 $OP = 0$
 $OP' \rightarrow OP''$

