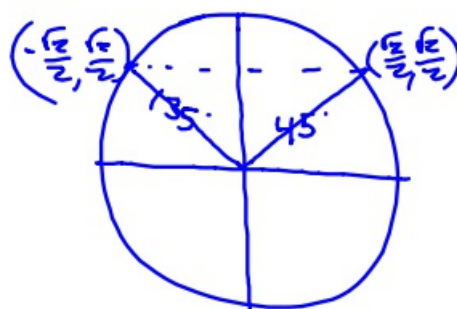


4-20-18 1st Trig
Solve Domain $(0, 360]$

$$\textcircled{1} \quad \frac{2 \cdot \sin x}{2} = \frac{\sqrt{2}}{2}$$

$$\sin x = \frac{\sqrt{2}}{2} \quad (\cos \theta, \sin \theta)$$

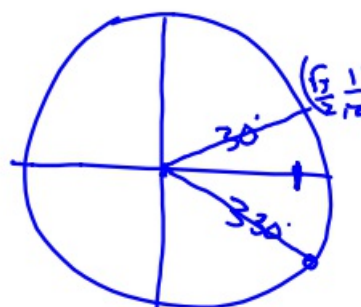
$$x = 45^\circ, 135^\circ$$



$$\textcircled{2} \quad \frac{2 \cdot \cos x}{2} = \frac{\sqrt{3}}{2}$$

$$\cos x = \frac{\sqrt{3}}{2}$$

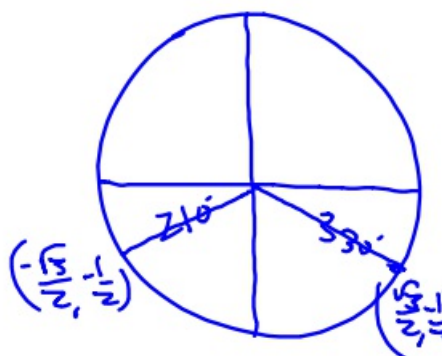
$$x = 30^\circ, 330^\circ$$



$$\textcircled{3} \quad \frac{2 \cdot \sin x}{2} = -\frac{1}{2}$$

$$\sin x = -\frac{1}{2}$$

$$x = 210^\circ, 330^\circ$$



$$\textcircled{4} \quad \cos x \cdot \cos x - \cos x = 0$$

$$\cos x (\cos x - 1) = 0$$

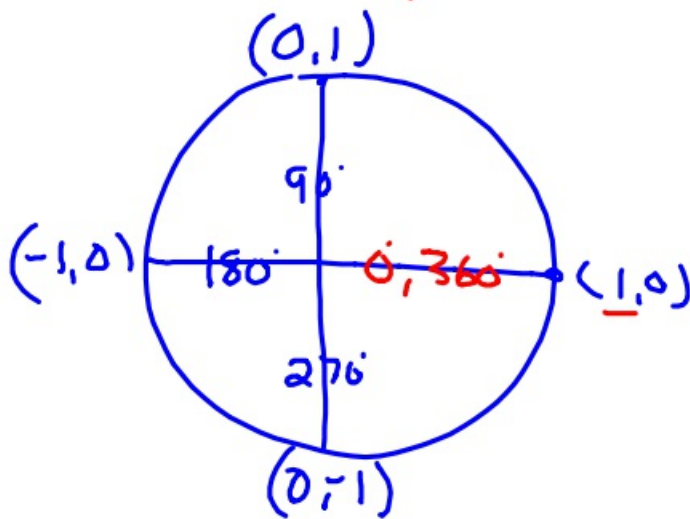
$$a \cdot b = 0$$

$$\cos x = 0 \quad \text{OR} \quad \frac{\cos x - 1 = 0}{+1 \quad +1}$$

$90^\circ, 270^\circ$

$$\cos x = 1$$

360°

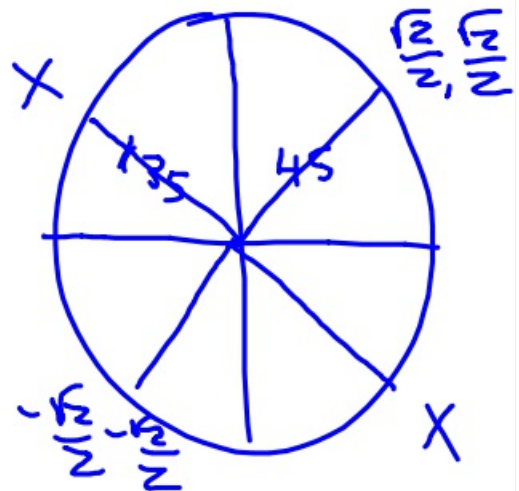


$$\textcircled{5} \quad \tan x = 1$$

$$\frac{\sin x}{\cos x} = 1$$

$$\sin x = \cos x$$

$$x = 45^\circ, 225^\circ$$



4-20-18 3rd Trig

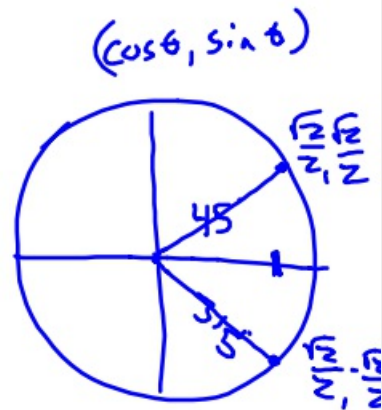
Domain $(0, 360^\circ]$

Solve

$$\textcircled{1} \frac{2 \cdot \cos x}{2} = \frac{\sqrt{2}}{2}$$

$$\cos x = \frac{\sqrt{2}}{2}$$

$$x = 45^\circ, 315^\circ$$

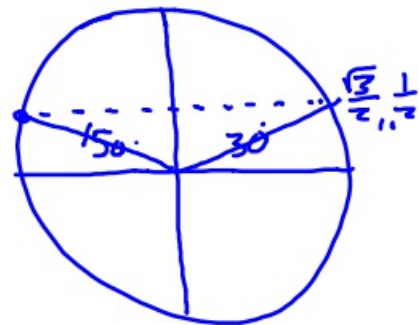


$$\textcircled{2} \frac{2 \sin x}{2} = \frac{1}{2}$$

$$\sin x = \frac{1}{2}$$

$$x = 30^\circ, 150^\circ$$

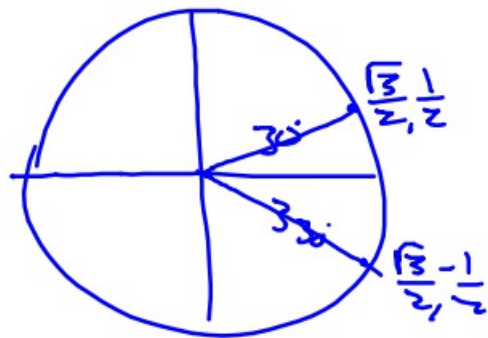
$$2 \cdot \square = 1$$



$$\textcircled{3} \frac{2 \cos x}{2} = \frac{\sqrt{3}}{2}$$

$$\cos x = \frac{\sqrt{3}}{2}$$

$$x = 30^\circ, 330^\circ$$



$$\textcircled{4} \cos x \cdot \cos x - \cos x = 0$$

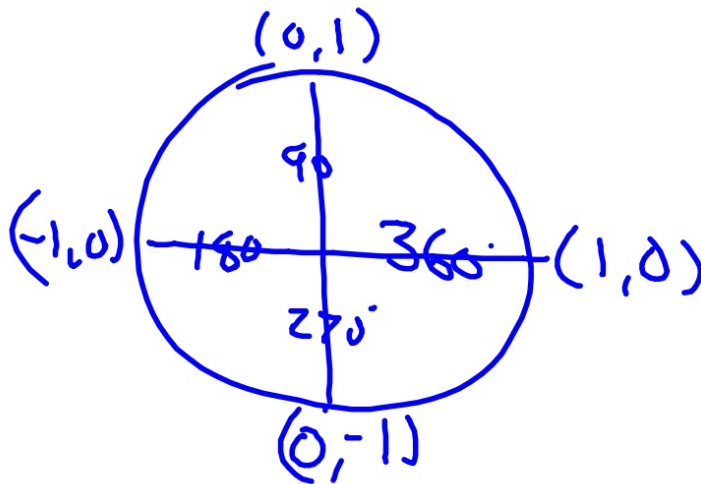
$$\cos x (\cos x - 1) = 0$$

$$\cos x = 0 \quad \text{or} \quad \cos x - 1 = 0$$

$$\boxed{90^\circ, 270^\circ}$$

$$\frac{+1 + 1}{\cos x = 1}$$

$$\boxed{360^\circ}$$



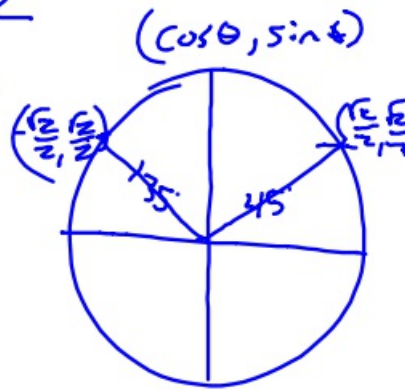
4-20-18 4th Trig

Domain: $(0, 360]$

① $\frac{2 \cdot \sin x}{2} = \frac{\sqrt{2}}{2}$

$\sin x = \frac{\sqrt{2}}{2}$

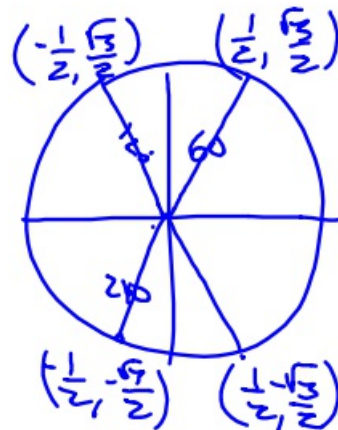
$x = 45^\circ, 135^\circ$



② $\frac{2 \cdot \cos x}{2} = -\frac{1}{2}$

$\cos x = -\frac{1}{2}$

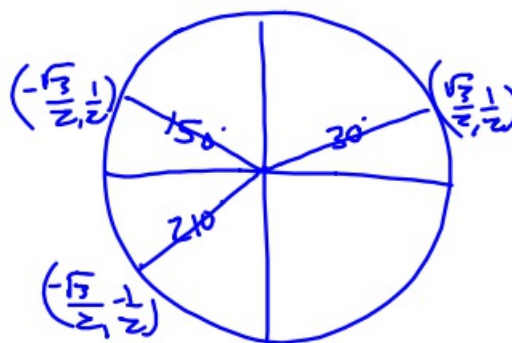
$x = 120^\circ, 240^\circ$



③ $\frac{2 \cdot \cos x}{2} = -\frac{\sqrt{3}}{2}$

$\cos x = -\frac{\sqrt{3}}{2}$

$x = 150^\circ, 210^\circ$



$$\textcircled{4} \quad \cos x \cdot \cos x - \cos x = 0$$

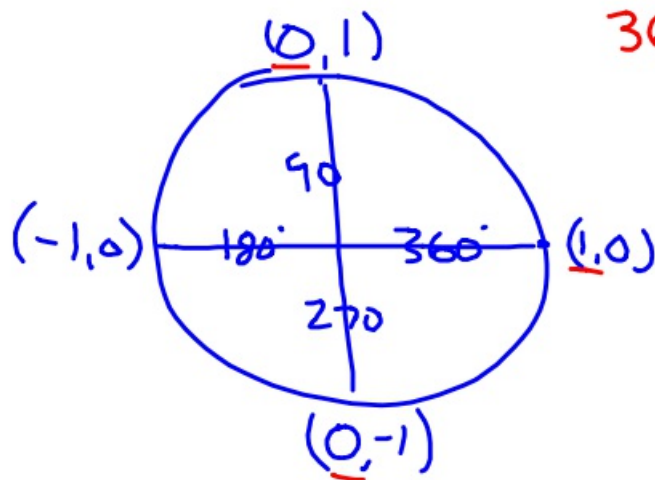
$$\cos x (\cos x - 1) = 0$$

$$\cos x = 0 \quad \text{OR} \quad \frac{\cos x - 1 = 0}{+1 \quad +1}$$

$$90^\circ, 270^\circ$$

$$\cos x = 1$$

$$360^\circ$$



$$\textcircled{5} \quad \tan x = 1$$

$$\frac{\sin x}{\cos x} = 1$$

$$\sin x = \cos x$$

$$x = 45^\circ, 225^\circ$$

