

Solve these equations giving all solutions between 0° and 180°

$\cos 2\theta = \frac{1}{2}$
 $\cos^2 \theta - \sin^2 \theta = \frac{1}{2}$
 $\cos^2 \theta - (1 - \cos^2 \theta) = \frac{1}{2}$
 $2\cos^2 \theta - 1 = \frac{1}{2}$
 $2\cos^2 \theta = \frac{3}{2}$
 $\cos^2 \theta = \frac{3}{4}$
 $\cos \theta = \pm \sqrt{\frac{3}{4}}$
 $\cos \theta = \pm \frac{\sqrt{3}}{2}$
 $\theta = \cos^{-1} \left(\pm \frac{\sqrt{3}}{2} \right)$
 $\theta = \cos^{-1} \left(\frac{\sqrt{3}}{2} \right)$
 $\theta = \cos^{-1} \left(-\frac{\sqrt{3}}{2} \right)$
 $\theta = 30^\circ$
 $\theta = 150^\circ$
 $\theta = 150^\circ$
 $\theta = 30^\circ$
 $\theta = 30^\circ, 150^\circ$