

# Solving trigonometric equations



## Gold

Solve the equation:

$$4\cos^2 x - 3 = 0$$

for  $-\pi \leq x \leq \pi$ .

## Silver

Solve the equation:

$$2\cos(2x) = \sqrt{2}$$

for  $-\pi \leq x \leq \pi$ .

## Bronze

Solve the equation:

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

for  $0 \leq x \leq 2\pi$ .