

Solving  
Trig Equations  
using  
Sum & Difference Identities

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Ex.1 - Solve. Write answers between  $[0, 2\pi)$  :

$$\cos\left(\frac{\pi}{2} + x\right) = \frac{\sqrt{2}}{2}$$

Ex.2 - Solve:

$$\cos\left(\frac{\pi}{6} + x\right) + \sin\left(\frac{\pi}{3} + x\right) = 0$$

Ex.3 - Solve:

$$\sin(\pi - x) = \sqrt{2} - \sin x$$

Ex.4 - Solve:

$$\cos\left(x + \frac{3\pi}{2}\right) = 2\sin^2 x - 3$$