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## Trigonometric Equations - Using Pythagorean Identities 1

$$\therefore \tan \theta = \frac{1}{2} \quad \text{or} \quad \tan \theta = -1$$

$$\text{when } \tan \theta = \frac{1}{2}$$

$$\therefore \theta = \tan^{-1}\left(\frac{1}{2}\right)$$

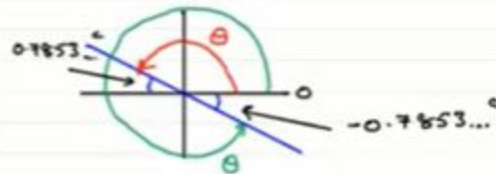
$$\therefore \theta = 0.4636\dots^{\circ}, 3.605\dots^{\circ}$$



$$\text{when } \tan \theta = -1$$

$$\therefore \theta = \tan^{-1}(-1)$$

$$\therefore \theta = \left(-\frac{\pi}{4}\right)^{\circ}, \frac{3\pi}{4}^{\circ}, \frac{7\pi}{4}^{\circ}$$



$$\therefore \theta = 0.5^{\circ} \text{ (1dp)}, \frac{3}{4}\pi^{\circ}, 3.6^{\circ} \text{ (1dp)}, \frac{7\pi}{4}^{\circ}$$

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