

Find Complementary and Supplementary angles:

$$1) - \frac{\pi}{6} : \text{Comp: } \frac{\pi}{2} - \frac{\pi}{6} \Rightarrow \frac{3\pi}{6} - \frac{\pi}{6} \Rightarrow \frac{2\pi}{6} = \frac{\pi}{3}$$

$$\frac{\pi}{6} : \text{Supp: } \pi - \frac{\pi}{6} \Rightarrow \frac{6\pi}{6} - \frac{\pi}{6} = \frac{5\pi}{6}$$

2) 120° :-

$$\text{Comp: } 90^\circ - 120^\circ = -30^\circ \text{ DNE}$$

Because the result is minus, the complement Does Not Exist.

$$\text{Supp: } 180^\circ - 120^\circ = 60^\circ$$

$$\text{Radian} = 57.2958^\circ$$

$$\text{Formula: } 1\text{rad} \times \frac{180^\circ}{\pi} = 57.2958^\circ$$

Quiz #1

Q 1: Find the angle θ that's supplementary to 126° .

Sol: $180^\circ - 126^\circ = 54^\circ$

Q 2: Find the Complementary angle in radians to $\frac{\pi}{6}$.

Sol: $\frac{\pi}{2} - \frac{\pi}{6} \Rightarrow \frac{3\pi}{6} - \frac{\pi}{6} \Rightarrow \frac{2\pi}{6}$
 $= \frac{\pi}{3} \quad \theta = \frac{1}{3}\pi$

Q 3: Find the θ angle that's $1/3$ as large as the supplement of 87°

Sol: $\frac{180^\circ - 87^\circ}{3} \Rightarrow \frac{60^\circ - 29^\circ}{3} = 31^\circ$