

## Precalculus

### The equation $\sin \theta = a$ , special angles

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## Example

Find all solutions and then find those that lie between  $-360^\circ$  and  $360^\circ$ .

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

$$\theta = 60^\circ + k \cdot 360^\circ = \dots -660^\circ, -300^\circ, 60^\circ, 420^\circ, \dots$$

**or**

$$\dots \quad k=-2 \quad k=-1 \quad k=0 \quad k=1 \quad \dots$$

$$120^\circ + k \cdot 360^\circ = \dots -600^\circ, -240^\circ, 120^\circ, 480^\circ, \dots$$

$$\theta =$$

$$\dots -660^\circ, -300^\circ, 60^\circ, 420^\circ, \dots$$

$$\dots -600^\circ, -240^\circ, 120^\circ, 480^\circ, \dots$$

