

BOX 1 p. 97

16. If $\cos \theta = \frac{1}{5}$ and $\tan \theta = 2\sqrt{6}$, determine the exact value of $\sin \theta$.

$$\frac{\sin \theta}{\cos \theta} = \frac{\sin \theta}{\frac{1}{5}} = \sin \theta \div \frac{1}{5} = \sin \theta \cdot \frac{5}{1} = 5 \sin \theta$$

BOX 2

$$5 \sin \theta = 2\sqrt{6}$$

$$5 \cdot x = 2\sqrt{6}$$

$$\sin \theta = \frac{2\sqrt{6}}{5}$$

$$\frac{2\sqrt{6}}{5} = \sin \theta$$

$$3 = x$$

$$x = 3$$