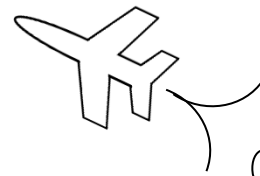


Math on the Fly!

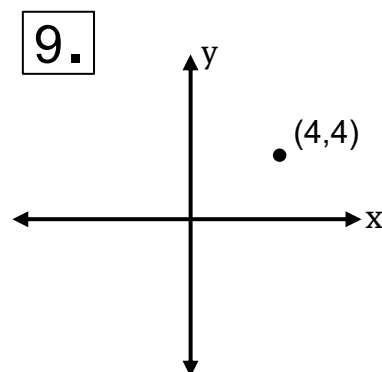
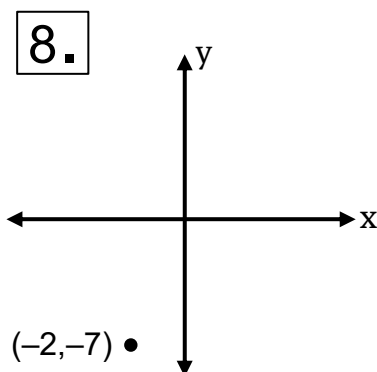
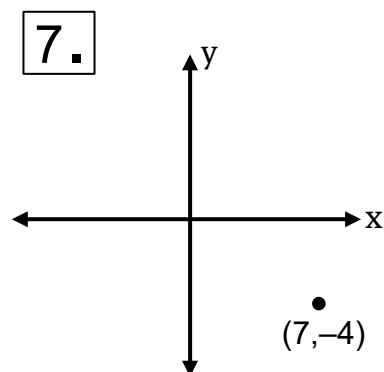
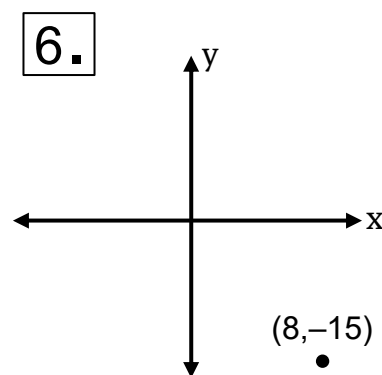
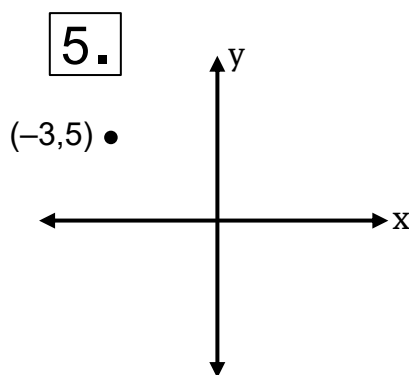
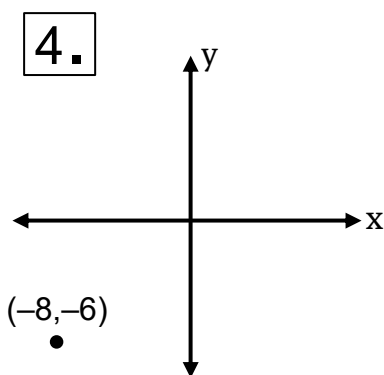
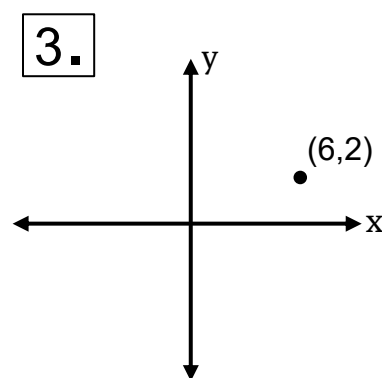
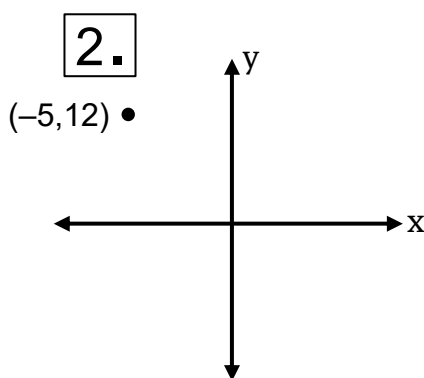
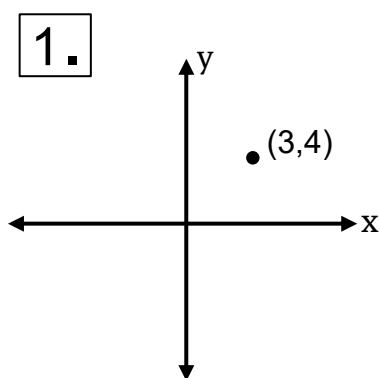


NAME: _____ DATE: _____

Trigonometry on the X–Y Plane

In each diagram, an angle θ has an initial side on the positive x-axis and a terminal side that passes through the given point.

Find the exact values of $\cos\theta$, $\sin\theta$ and $\tan\theta$ for each angle.



SOLUTIONS

$$\boxed{1.} \quad \sin\theta = \frac{4}{5}$$

$$\cos\theta = \frac{3}{5}$$

$$\tan\theta = \frac{4}{3}$$

$$\boxed{2.} \quad \sin\theta = \frac{12}{13}$$

$$\cos\theta = -\frac{5}{13}$$

$$\tan\theta = -\frac{12}{5}$$

$$\boxed{3.} \quad \sin\theta = \frac{2}{\sqrt{40}}$$

$$\cos\theta = \frac{6}{\sqrt{40}}$$

$$\tan\theta = \frac{2}{6} = \frac{1}{3}$$

$$\boxed{4.} \quad \sin\theta = \frac{-6}{10} = -\frac{3}{5}$$

$$\cos\theta = \frac{-8}{10} = -\frac{4}{5}$$

$$\tan\theta = \frac{-6}{-8} = \frac{3}{4}$$

$$\boxed{5.} \quad \sin\theta = \frac{5}{\sqrt{34}}$$

$$\cos\theta = -\frac{3}{\sqrt{34}}$$

$$\tan\theta = -\frac{5}{3}$$

$$\boxed{6.} \quad \sin\theta = -\frac{15}{17}$$

$$\cos\theta = \frac{8}{17}$$

$$\tan\theta = -\frac{15}{8}$$

$$\boxed{7.} \quad \sin\theta = -\frac{4}{\sqrt{65}}$$

$$\cos\theta = \frac{7}{\sqrt{65}}$$

$$\tan\theta = -\frac{4}{7}$$

$$\boxed{8.} \quad \sin\theta = -\frac{7}{\sqrt{53}}$$

$$\cos\theta = -\frac{2}{\sqrt{53}}$$

$$\tan\theta = \frac{-7}{-2} = \frac{7}{2}$$

$$\boxed{9.} \quad \sin\theta = \frac{4}{\sqrt{32}}$$

$$\cos\theta = \frac{4}{\sqrt{32}}$$

$$\tan\theta = \frac{4}{4} = 1$$