

Geometric Concepts Worksheet

NAME:

DATE:

1. Express the lengths of sides in simplest radical form:

(a) Find b and c if $A = 30^\circ$ and $a = 3$ yards.

(b) Find c if $A = 45^\circ$ and $a = 4$ meters.

2. Change each angle to radians.

(a) 80°

(b) 150°

3. Change each measurement to degrees

(a) $\frac{13\pi}{18}$

(b) $\frac{-7\pi}{6}$

4. The point P is on the terminal side of θ and θ is a positive angle less than 360° in standard position. Draw θ , and determine the values of the six trigonometric functions of θ .

(a) $P(-3, 1)$

(b) $P(-2, 2)$

5. Draw θ in standard position and chose a specific point P on the terminal side of θ . Determine $\sin\theta$, $\cos\theta$ and $\tan\theta$.

(a) $\theta = \frac{3\pi}{4}$

(b) $\theta = -\frac{\pi}{3}$

6. Determine θ if θ is a positive angle less than 360° that satisfies the stated conditions.

(a) $\sin\theta = \frac{\sqrt{3}}{2}$ and $\cos\theta$ is negative.

(b) $\tan\theta = 1$ and $\sin\theta$ is negative.