

## Using Pythagorean Identities

Use the Pythagorean Identities to find the value of each expression.

1) Find  $\sin \theta$  and  $\tan \theta$

if  $\csc \theta = \frac{7}{4}$  and  $\sec \theta > 0$ .

2) Find  $\tan \theta$  and  $\csc \theta$

if  $\cot \theta = -3$  and  $\sin \theta < 0$ .

3) Find  $\sec \theta$  and  $\csc \theta$

if  $\cot \theta = 3$  and  $\sin \theta < 0$ .

4) Find  $\tan \theta$  and  $\sec \theta$

if  $\csc \theta = -\frac{9}{5}$  and  $\cot \theta < 0$ .

5) Find  $\csc \theta$  and  $\sin \theta$

if  $\tan \theta = \frac{2}{5}$  and  $\cos \theta < 0$ .

6) Find  $\csc \theta$  and  $\sec \theta$

if  $\cot \theta = \frac{5}{9}$  and  $\cos \theta > 0$ .

7) Find  $\csc \theta$  and  $\tan \theta$

if  $\sec \theta = -2$  and  $\tan \theta > 0$ .

8) Find  $\tan \theta$  and  $\sin \theta$

if  $\cos \theta = -\frac{1}{2}$  and  $\tan \theta > 0$ .