Name_____

Using Identities Practice Quiz

Date_____ Period____

Use identities to find the value of each expression.

1) Find $\sin \theta$ and $\tan \theta$
   if $\cos \theta = -\dfrac{4}{5}$ and $\tan \theta < 0$.

2) Find $\csc \theta$ and $\sin \theta$
   if $\cos \theta = -\dfrac{4}{7}$ and $\sin \theta < 0$.

3) Find $\cos \theta$ and $\sin \theta$
   if $\cot \theta = -\dfrac{3}{4}$ and $\cos \theta > 0$.

4) Find $\csc \theta$ and $\sin \theta$
   if $\cos \theta = -\dfrac{4}{5}$ and $\csc \theta > 0$.

Simplify.

5) $\sin \theta \sec \theta \cot \theta$

6) $1 + \tan^2 \left(\dfrac{\pi}{2} - \theta \right)$

7) $\dfrac{\sec^2 - x - 1}{\sin^2 x}$

8) $\tan^2 x - \tan^2 x \sin^2 x$

Verify the Identity.

9) $\dfrac{\sin x \cos -x}{1 - \cos^2 x} = \cot x$

10) $\dfrac{1 - \sin^2 x}{1 + \cot^2 x} = \sin^2 x \cos^2 x$

11) $\dfrac{\tan^2 x}{1 + \tan^2 x} = \sin^2 x$

12) $\dfrac{\sec x - 1}{\csc\left(\dfrac{\pi}{2} - \theta\right) + 1} = \dfrac{1 - \cos x}{1 + \cos x}$