Honors Precalculus   Name_____

Using Pythagorean Identities - #2

Date_____ Period____

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

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

2) Find $\csc \theta$ and $\tan \theta$
   if $\cos \theta = -\dfrac{1}{2}$ and $\cot \theta > 0$.

3) Find $\cos \theta$ and $\tan \theta$
   if $\sec \theta = \dfrac{5}{3}$ and $\csc \theta > 0$.

4) Find $\cot \theta$ and $\cos \theta$
   if $\csc \theta = \dfrac{3}{2}$ and $\cot \theta < 0$.

5) Find $\cos \theta$ and $\csc \theta$
if $\cot \theta = \dfrac{1}{4}$ and $\csc \theta > 0$.

6) Find $\csc \theta$ and $\sec \theta$
if $\cos \theta = -\dfrac{1}{3}$ and $\tan \theta > 0$.

7) Find $\csc \theta$ and $\cos \theta$
if $\cot \theta = -\dfrac{3}{2}$ and $\cos \theta < 0$.

8) Find $\sec \theta$ and $\sin \theta$
if $\csc \theta = 3$ and $\tan \theta < 0$.

Answers to Using Pythagorean Identities - #2

1) $-\dfrac{5}{3}$ and $-\dfrac{4}{3}$

2) $-\dfrac{2\sqrt{3}}{3}$ and $\sqrt{3}$

3) $\dfrac{3}{5}$ and $\dfrac{4}{3}$

4) $-\dfrac{\sqrt{5}}{2}$ and $-\dfrac{\sqrt{5}}{3}$

5) $\dfrac{\sqrt{17}}{17}$ and $\dfrac{\sqrt{17}}{4}$

6) $-\dfrac{3\sqrt{2}}{4}$ and -3

7) $\dfrac{\sqrt{13}}{2}$ and $-\dfrac{3\sqrt{13}}{13}$

8) $-\dfrac{3\sqrt{2}}{4}$ and $\dfrac{1}{3}$