Identities Quiz coming soon!!

***Quiz yourself right now.**

***No notes, fill in as many blanks as possible.**

***Grade your work.**

***Use the practice quiz as a guide to study for tomorrow's quiz** *(same format, questions will be in a different order.)*

Name the function that best completes each statement.

Quotient Identities:

1. _____ $= \frac{\cos\theta}{\sin\theta}$ 2. _____ $= \frac{\sin\theta}{\cos\theta}$

Opposite Angle Identities:

3. $\sin(-\theta) =$ _____ 4. $\cos(-\theta) =$ _____

Reciprocal identities:

5. _____ $= \frac{1}{\tan\theta}$
6. _____ $= \frac{1}{\cos\theta}$
7. _____ $= \frac{1}{\sin\theta}$

Pythagorean identities:

8. _____ + _____ $= 1$

Double angle identities:

9. $\sin 2\theta =$ _____

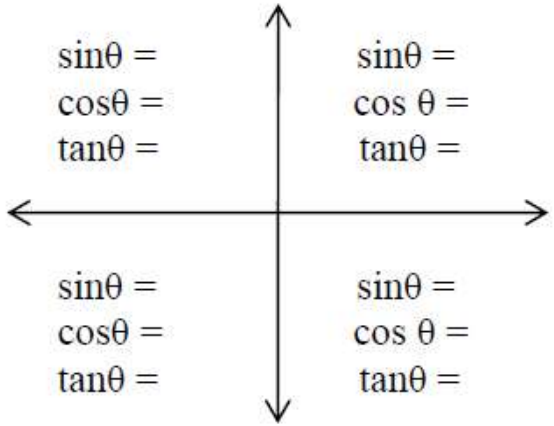
10. $\cos 2\theta =$ _____ $-$ _____

#11-12: *Derive* the other two Pythagorean identities using the information in #8. Clearly show all steps.

11.

12.

13. *Fill in* $+$ *or* $-$ next to each function to indicate its sign for each quadrant.



Identities *Practice* Quiz

✓CHECK ANSWERS

Name the function that best completes each statement.

Quotient Identities:

1. $\cot\theta = \frac{\cos\theta}{\sin\theta}$ **cotθ**

2. $\tan\theta = \frac{\sin\theta}{\cos\theta}$ **tanθ**

Opposite Angle Identities:

3. $\sin(-\theta) =$ **-sin(θ)**

4. $\cos(-\theta) =$ **cos(θ)**

Reciprocal identities:

5. $\underline{\mathbf{\cot\theta}} = \dfrac{1}{\tan\theta}$

6. $\underline{\mathbf{\sec\theta}} = \dfrac{1}{\cos\theta}$

7. $\underline{\mathbf{\csc\theta}} = \dfrac{1}{\sin\theta}$

Pythagorean identities:

8. $\underline{\mathbf{\sin^2\theta}} + \underline{\mathbf{\cos^2\theta}} = 1$

Double angle identities:

9. $\sin 2\theta =$ $2\sin\theta\cos\theta$

10. $\cos 2\theta =$ $\cos^2\theta - \sin^2\theta$

#9-10: *Derive* the other two Pythagorean identities using the information in #8. Clearly show all steps.

9. $\frac{\sin^2\theta}{\sin^2\theta} + \frac{\cos^2\theta}{\sin^2\theta} = \frac{1}{\sin^2\theta}$

divide

Simplify → $1+\cot^2\theta = \csc^2\theta$

10. $\frac{\sin^2\theta}{\cos^2\theta} + \frac{\cos^2\theta}{\cos^2\theta} = \frac{1}{\cos^2\theta}$

divide

→ $\tan^2\theta+1 = \sec^2\theta$

Simplify

13. *Fill in* + *or* − next to each function to indicate its sign for each quadrant.