

PreAP Precalculus
WS – Using Identities to Simply Expressions
Spring 2019

Name _____

Date _____ Per _____

Express the following in terms of a **single** trigonometric function.

1. $\csc x \tan x$

2. $(1 - \sin^2 x) \sec x$

3. $\frac{\cos^2 x - 1}{\sec x} \cdot \tan x$

4. $\frac{\sec^2 x - \tan^2 x}{\csc x}$

5. $\frac{\csc x - \sin x}{\cos x}$

6. $\frac{\sin x \cos x}{1 - \cos^2 x}$

7. $\frac{\cos x}{1 + \sin x} + \tan x$

8. $\frac{\sec x}{\sin x} - \frac{\sec x}{\csc x}$

9. $1 - \frac{\cos^2 x}{1 + \sin x}$

10. $\frac{\sec x - \cos x}{\sin x}$

11. $\frac{\sec x - \cos x}{\sin^2 x \sec^2 x}$

12. $\sqrt{4 + 4 \tan^2 x}$

13. $\frac{1}{2} \left(\frac{\sin x}{1 - \cos x} - \frac{1 - \cos x}{\sin x} \right)$

14. $\frac{1 - \tan^4 x}{\cos^2 x - \sin^2 x}$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____