Simplifying Trig Expressions
Algebra III

Name: _____
4/30/18

Use fundamental identities to simplify each expression.

1. $\tan\theta\cos\theta$

2. $(1-\sin\theta)(1+\sin\theta)$

3. $\csc\alpha\tan\alpha$

4. $\dfrac{\sec x}{\csc x}$

5. $(\cos x+1)^2-(\cos x-1)^2$

6. $\cos x\cot x\sin x$

7. $\dfrac{\sin\theta}{\csc\theta}+\dfrac{\cos\theta}{\sec\theta}$

8. $\sin^2 x+\cos^2 x+\tan^2 x$

9. $\cos\alpha(\sec\alpha-\cos\alpha)$

10. $\dfrac{1+\cot^2\theta}{1+\tan^2\theta}$

11. $\dfrac{\sin\beta\tan\beta}{\cos\beta}$

12. $\dfrac{1}{\tan^2\theta}+\sin\theta\csc\theta$