

Factor each expression.

1. $4 \sin x \cos x - 2 \sin x$

2. $\sin^2 x - 2 \sin x + 1$

3. $3 \cos^2 x - 4 \cos x - 4$

4. $\tan^2 x - 16$

5. $25 \sin^2 x - 9$

6. $\cos x \sin x - \cos^2 x$

Simplify each expression.

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

8. $\tan^2 x \csc^2 x - \tan^2 x$

9. $\frac{1 - \sec x}{\sec^2 x - 1}$

10. $\frac{\sec^2 x - \sec x}{5 \sec x}$