Simplify each expression.

1. $\dfrac{\sec(x)\sin(x)}{\tan(x) + \cot(x)}$

2. $\dfrac{\sec(x)}{\cos(x)} - \dfrac{\tan(x)}{\cot(x)}$

3. $\csc^2 x \tan^2 x - 1$

4. $(\sin x + \cos x)^2 + (\sin x - \cos x)^2$

5. $(\sin x + \cos x)(\tan x + \cot x)$

6. $\dfrac{\sin(x) + \tan(x)}{1 + \sec(x)}$