

Video Quiz 6

1. (2 pts.) Simplify the following expression: $\frac{1 - \csc^2 x}{\cot x}$. (*Hint: Use a Pythagorean Identity*)
2. (2 pts.) Simplify the following expression: $\sin x - \frac{\tan(-x)}{\sec x}$. (*Hint: Break things into sines and cosines and use negative identities*)
3. (2 pts.) Simplify the following expression: $\sec x \csc x - \sec x \sin x$ (*Hint: Break things into sines and cosines using reciprocal identities, then make a common denominator of $\sin x \cos x$*)
4. (2 pts.) *True or False:* $\sec^2 x - \tan^2 x = 1$ is an identity, i.e. this statement is true for ALL values x
5. (2 pt.) *True or False:* $\sin(-x) - \sin(-x) = 0$ is an identity, i.e. this statement is true for ALL values x