

7.1 Extra Practice

Simplify the following expressions.

1) $\sin x \cot x$

5) $\cos x + \tan x \sin x$

2) $\frac{\sec x}{\csc x}$

6) $\sin^3 x + \sin x \cos^2 x$

3) $\frac{1 - \sin^2 x}{\cos x}$

7) $\frac{\csc x - \sin x}{\csc x}$

4) $\sin t - \sin t \cos^2 t$

8) $\frac{\sin x}{\cos x} + \frac{\cos x}{1 + \sin x}$

$$= \frac{1 - \cos^2 x}{1 + \cos x} \rightarrow \frac{(1 + \cos x)(1 - \cos x)}{(1 + \cos x)} = \boxed{1 - \cos x}$$