**6.1 Exercises – Using Fundamental Identities**

**Use the fundamental identities to simplify the expression.**

1. cos x tan x
2. sec2 x (1 – sin2 x)

**Factor the expression and use the fundamental identities to simplify.**

1. sec2 x tan2 x + sec2 x
2. 1 – 2 sin2x + sin4 x
3. sec4 x – tan 4 x
4. sec3 x – sec2 x – sec x + 1

**Perform the multiplication. Then simplify.**

1. (sin x + cos x)2
2. (tan x + sec x)(tan x – sec x)
3. (csc x + 1)(csc x – 1)
4. (5 – 5 sin x)(5 + 5 sin x)

**Perform the addition or subtraction as indicated. Then simplify.**

1.

**Rewrite the expression so that is *not* in fractional form.**

1.