

Lesson 5.5 Extra Practice Answers

1.
 - a) No, the equation is not an identity.
 - b) Yes, the equation is an identity.
 - c) Yes, the equation is an identity.
 - d) No, the equation is not an identity.
2.
 - a) $\tan^2 \phi - 16$
 - b) $9 - \cos^2 \phi$
3.
 - a) $\tan x, \cos x \neq 0$
 - b) $\cos^2 x, \tan x \neq 0, \cos x \neq 0, \sin x \neq 0$
 - c) $\sec^2 x, \cos x \neq 0$
 - d) $\sin^2 x, \cos x \neq 0$
4.
 - a) $(\tan \alpha + 5)(\tan \alpha - 5)$
 - b) $(4 + \sin \alpha)(4 - \sin \alpha)$
 - c) $(\sin \alpha + 1)^2$
 - d) $(\cos \alpha - 3)^2$
 - e) $(\sin \alpha + \cos \alpha)^2$
 - f) $2(2 + \sin \alpha)$
5.
 - a) $\csc \theta$
 - b) $1 + 2 \sin \theta \times \cos \theta$
 - c) $\sin^2 \theta \times \cos^2 \theta$
 - d) $\sec^2 \theta$
 - e) $\sec^2 \theta$
 - f) $\sin^2 \theta \times \cos^2 \theta$
6. $(\sec \beta + \tan \beta)(\sec \beta - \tan \beta)$
7.
 - a) Yes, the equation is an identity.
 - b) No, the equation is not an identity.
 - c) No, the equation is not an identity.
 - d) No, the equation is not an identity.
 - e) Yes, the equation is an identity.
 - f) No, the equation is not an identity.