■ EJERCICIOS

1-24 ■ Verifique la identidad.

1. $\operatorname{sen}\theta\,(\cot\theta + \tan\theta) = \sec\theta$

2. $(\sec\theta - 1)(\sec\theta + 1) = \tan^2\theta$

3. $\cos^2 x\,\csc x - \csc x = -\operatorname{sen} x$

4. $\dfrac{1}{1 - \operatorname{sen}^2 x} = 1 + \tan^2 x$

5. $\dfrac{\cos^2 x - \tan^2 x}{\operatorname{sen}^2 x} = \cot^2 x - \sec^2 x$

6. $\dfrac{1 + \sec x}{\sec x} = \dfrac{\operatorname{sen}^2 x}{1 - \cos x}$

7. $\dfrac{\cos^2 x}{1 - \operatorname{sen} x} = \dfrac{\cos x}{\sec x - \tan x}$

8. $(1 - \tan x)(1 - \cot x) = 2 - \sec x\,\csc x$

9. $\operatorname{sen}^2 x\,\cot^2 x + \cos^2 x\,\tan^2 x = 1$

10. $(\tan x + \cot x)^2 = \csc^2 x\,\sec^2 x$

11. $\dfrac{\operatorname{sen} 2x}{1 + \cos 2x} = \tan x$

12. $\dfrac{\cos(x + y)}{\cos x\,\operatorname{sen} y} = \cot y - \tan x$

13. $\tan\dfrac{x}{2} = \csc x - \cot x$