

14.

$$\frac{1}{\sec x - \tan x} = \sec x + \tan x$$

$$\frac{1}{\sec x - \tan x} \cdot \frac{\sec x + \tan x}{\sec x + \tan x}$$

$$\frac{\sec x + \tan x}{\sec^2 x - \tan^2 x}$$

$$\frac{\sec x + \tan x}{1}$$

$$\sec x + \tan x \checkmark$$

$$\textcircled{16} \quad \tan^2 x + 1 = \sec^2 x$$

$$1 = \sec^2 x - \tan^2 x$$

$$15. \quad \frac{\sin x}{1 + \cos x} + \frac{1 + \cos x}{\sin x} = 2 \csc x$$

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

$$\frac{\sin^2 x}{(1 + \cos x)(\sin x)} + \frac{1 + \cos x + \cos x + \cos^2 x}{(1 + \cos x)(\sin x)}$$

$$\frac{\sin^2 x + \cos^2 x + 1 + 2 \cos x}{(1 + \cos x)(\sin x)}$$

$$\frac{1 + 1 + 2 \cos x}{(1 + \cos x)(\sin x)}$$

$$\frac{2 + 2 \cos x}{(1 + \cos x)(\sin x)}$$

$$\frac{2(1 + \cos x)}{(1 + \cos x) \sin x}$$

$$\frac{2}{\sin x}$$

$$\textcircled{15} \quad 2 \csc x \checkmark$$

$$\textcircled{15} \quad \sin^2 x + \cos^2 x = 1$$