

# Challenge 1

$\csc \theta \tan \theta$

# Challenge 2

$$\sin \theta + \cot \theta \cos \theta$$

# Challenge 3

$$\csc^2 \theta - \cot^2 \theta$$

# Challenge 4

$$\sec^2 \theta - \cos^2 \theta \sec^2 \theta$$

# Challenge 5

$$\sin^2 \theta + \cos^2 \theta + \tan^2 \theta$$

# Challenge 6

$$\cos \theta (1 + \tan^2 \theta)$$

# Challenge 7

$$\sin \theta \csc \theta - \cos^2 \theta$$

# Challenge 8

$$\sec \theta - \sin \theta \tan \theta$$

# Challenge 9

$$(\csc \theta + 1)(\csc \theta - 1)$$

# Challenge 10

 $\sin \theta$ 

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 $\cos \theta \tan \theta$

# Challenge 11

$$(\csc \theta + \cot \theta)(1 - \cos \theta)$$

# Challenge 12

$$(\tan^2 \theta - \sec^2 \theta)(\sin^2 \theta + \cos^2 \theta)$$