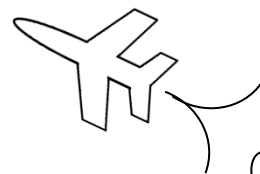


# Math on the Fly!



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## Trigonometric Identities

Use trigonometric identities to simplify each expression.

1.

$$\sec x \csc x \cos x$$

2.

$$\csc x \sin^2 x \cot x$$

3.

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

4.

$$\frac{\cos x \sin x}{\tan x}$$

5.

$$\cos(90^\circ - x) \csc x$$

6.

$$1 - \sin^2 x - \cos^2 x$$

7.

$$2\sin^2 x + \cos^2 x - \sin^2 x$$

8.

$$\sin(90^\circ - x) \tan x$$

9.

$$\frac{\sin x}{\csc x} + \frac{\cos x}{\sec x}$$

10.

$$\frac{\sqrt{1 - \cos^2 x}}{\sqrt{1 - \sin^2 x}}$$

## SOLUTIONS

1.  $\frac{1}{\sin x}$  or  $\csc x$

2.  $\cos x$

3.  $\sin x$

4.  $\cos^2 x$

5. 1

6. 0

7. 1

8.  $\sin x$

9. 1

10.  $\frac{\sin x}{\cos x}$  or  $\tan x$