

# Trigonometric ID & Equations

## Unit 11 Terms

28 points

### Quotient Identities:

1.  $\tan A =$  \_\_\_\_\_

2.  $\cot A =$  \_\_\_\_\_

### Pythagorean Identities:

1.  $\sin^2 A + \cos^2 A =$  \_\_\_\_\_

2.  $\tan^2 A + 1 =$  \_\_\_\_\_

3.  $1 + \cot^2 A =$  \_\_\_\_\_

Write down the identities.

### Reciprocal Identities:

1.  $\sin A =$  \_\_\_\_\_

2.  $\cos A =$  \_\_\_\_\_

3.  $\tan A =$  \_\_\_\_\_

4.  $\csc A =$  \_\_\_\_\_

5.  $\sec A =$  \_\_\_\_\_

6.  $\cot A =$  \_\_\_\_\_

### Multiplication Properties

$xy = yx$  \_\_\_\_\_ **Property**

$(xy)z = x(yz)$  \_\_\_\_\_ **Property**

$x(1) = x$  \_\_\_\_\_

$x \cdot \frac{1}{x} = 1$  \_\_\_\_\_ **Property**

### Properties of Equality for Real Numbers

If  $x = y$ , then  $xz = yz$  \_\_\_\_\_ **Property**

If  $x = y$ , then  $x + z = y + z$  \_\_\_\_\_ **Property**

$x(y + z) = xy + xz$  \_\_\_\_\_ **Property**  
 $(y + z)x = xy + xz$

$x = x$  \_\_\_\_\_ **Property**

If  $x = y$ , then  $y = x$  \_\_\_\_\_ **Property**

If  $x = y$  and  $y = z$ , then  $x = z$ . \_\_\_\_\_ **Property**

\_\_\_\_\_ **Property**

If  $x = y$ , then  $x$  may replace  $y$  in any equation.

\_\_\_\_\_ **Property**

If  $x = y + z$  and  $n$  is an odd integer, then  $\sqrt[n]{x} = \sqrt[n]{y + z}$ .

If  $x = y + z$  and  $n$  is an even integer, then  $\sqrt[n]{x} = \pm \sqrt[n]{y + z}$ .

\_\_\_\_\_ **Property**

If  $x = y + z$  and  $n$  is an integer, then  $x^n = (y + z)^n$

### Addition Properties

$x + y = y + x$  \_\_\_\_\_ **Property**

$(x + y) + z = x + (y + z)$  \_\_\_\_\_ **Property**

$x + 0 = x$  \_\_\_\_\_

$x + (-x) = 0$  \_\_\_\_\_ **Property**