Unit: 4. TRIGONOMETRY

VOCABULARY

| amplitude | the maximum displacement from the horizontal line of symmetry for |
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| | the sine and cosine functions |
| asymptotes | lines that a graph approaches but never touches |
| cosecant | the trigonometric ratio of hypotenuse over opposite side for an acute |
| | angle in a right triangle; the reciprocal of the sine function |
| cosine | the trigonometric ratio of adjacent side over hypotenuse for an acute |
| | angle in a right triangle |
| cotangent | the trigonometric ratio of adjacent side over opposite side for an |
| | acute angle in a right triangle; the reciprocal of the tangent function |
| domain | the set of first coordinates in a relation; the set of independent |
| | variable (x) values |
| even function | A function that satisfies the property $f(-x) = f(x)$ |
| frequency | the number of times the pattern in the graph repeats within 2 π for the |
| | sine, cosine, and their reciprocal functions, or within π for the tangent |
| | and cotangent functions; in physics, the number of waves (vibrations, |
| | revolutions, or cycles) that pass a given point per unit of time |
| hypotenuse | the longest side of a right triangle; the side that is opposite the right |
| | angle |
| identity | an equation that is true for all values of the given variable |
| odd function | A function that satisfies the property $f(-x) = -f(x)$ |
| period of a function | the displacement of x at which the graph of a function begins to |
| | repeat |
| periodic function | a function that repeats a pattern over its domain |

| phase shift | the displacement of the graph of a trigonometric function to the left or |
|---------------------|--|
| | right |
| radian | the measure of a central angle whose intercepted arc length is equal |
| | to the radius; a radian is approximately 57.3 degrees |
| range | the set of second coordinates in a relation; the set of dependent |
| | variable (y) values |
| reference angle | the acute angle formed between the terminal side of an angle and the |
| | x-axis |
| secant | the trigonometric ratio of hypotenuse over adjacent side for an acute |
| | angle in a right triangle; the reciprocal of the cosine function |
| sine | the trigonometric ratio of opposite side over hypotenuse for an acute |
| | angle in a right triangle |
| sinusoidal function | a function that can be graphed by using transformations of the sine |
| | function; functions of the form $y = AsinB(x - C) + D$ |
| tangent | the trigonometric ratio of opposite side over adjacent side for an |
| | acute angle in a right triangle |
| unit circle | a circle whose center is at the origin, (0, 0), and whose radius is 1 |

Vocab Arcade

Lesson 12

Variation Rules Reviewed