# GEOMETRY NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# TRIGONOMETRIC FUNCTIONS

The trigonometric ratios are also called trigonometric functions. Remember that a function takes an \_\_\_\_\_\_\_ and gives an \_\_\_\_\_\_\_\_\_.

In the case of sin, cos, and tan, the input is an \_\_\_\_\_\_\_\_\_ and the output is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Consider the triangle ABC, shown below.

37°

y

15

12

B

C

A

Remember that , so sin(\_\_\_\_) = \_\_\_\_\_\_\_\_.

Now we just have to solve for y. Your calculator should be in degree mode.

Could we have used another trig function to find y?

So if we know an \_\_\_\_\_\_\_ and a \_\_\_\_\_, we can find another \_\_\_\_\_\_. What if we just know two sides?

15

25

20

P

Q

R

Find the measure of angle R in the triangle at the right.

Select a trig function.

Enter the information that we know.

Solve for the angle.

The inverse of \_\_\_\_\_\_ is written as \_\_\_\_\_\_\_\_\_. The inverse negates the original function.

# GEOMETRY NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# TRIGONOMETRY PRACTICE B

Evaluate the trigonometric ratios below.

Solve.

|  |  |
| --- | --- |
|  |  |

Use the diagram of ΔRST at the right for questions 3-4. Round to the nearest tenth.

1. a = \_\_\_\_\_\_\_

7

R

T

S

60°

b

a

1. b = \_\_\_\_\_\_\_

Use the diagram of ΔJKL at the right for questions 5-6.

For questions #5-6, round your answer to the nearest tenth of a degree.

K

10

J

L

13

1. ∠ K = \_\_\_\_\_\_
2. ∠ L =\_\_\_\_\_\_

Use the diagram of ΔABC at the right for questions 7-8.

For questions #7-8, round your answers to the nearest tenth.

x

12

A

B

C

50°

1. x = \_\_\_\_\_\_
2. ∠ A = \_\_\_\_\_\_
3. Triangle XYZ is a right triangle with ∠Y being the right angle. If XY = 16 and YZ = 27, find the measure of ∠X. (Hint: Draw a diagram to help you solve).

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