

## **Puzzle Time**

## Why Should You Always Walk A Mile In People's Shoes Before You Criticize Them?

Α	В	С	D	E	F
G	Н	1	J	K	L

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

0.8391 FEET -0.8391Α false SOCKS included YOU'LL -0.1763 TO cotangent AND 16.8 **SHOES** 8.9 **ROAD** true **BECAUSE** 0.9063 **AND** 129.6 **END** 

## Complete the sentence.

- **A.** If  $\triangle ABC$  has sides of length a, b, and c, then the following are true:  $a^2 = b^2 + c^2 2bc \cos A$ ,  $b^2 = a^2 + c^2 2ac \cos B$ , and  $c^2 = a^2 + b^2 2ab \cos C$ . True or false?
- **B.** The Law of \_\_\_\_ can be used to solve triangles when two sides and the included angle are known, or when all three sides are known.
- **C.** The area of any triangle is given by one-half the product of the lengths of two sides times the sine of their angle.
- **D.** The Law of \_\_\_\_\_ can be used to solve triangles when two angles and the length of any side are known, or when the lengths of two sides and an angle opposite one of the two sides are known.

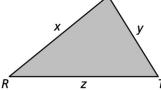
Use technology to find the trigonometric ratio. Round your answer to four decimal places.

**E.**  $\tan 140^{\circ}$  **F.**  $\sin 170^{\circ}$  **G.**  $\cos 135^{\circ}$  **H.**  $\sin 115^{\circ}$ 

Find the area of the triangle in square units Round your answer to the nearest tenth.

1. 
$$x = 21, z = 18, m \angle R = 44^{\circ}$$

**J.** 
$$x = 26, y = 15, m \angle S = 63^{\circ}$$





**K.** 
$$x = 11, y = 14, m \angle A = 40^{\circ}$$
; Find z.

**L.** 
$$x = 15, y = 24, m\angle C = 98^{\circ}$$
; Find z.



173.7

**HAVE**