

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

**LO4 - Formative Quiz - Solving for Sides and Angles**

Use the following information to answer Q1-Q2:

**Solving for  $\angle A$**

**Trigonometric Ratio**

1 - Sin  
2 - Cos  
3 - Tan

**Q1:** To solve the triangle above for  $\angle A$ , we will use a trigonometric ratio **d** from the text box above. The value of this ratio is  $\frac{e}{f}$ , where **d**, **e**, and **f** are \_\_, \_\_ and \_\_.

(Record your **three digit** answer in the Numerical Response boxes below)

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(Multiple correct answers will be accepted)

Option #1  
 $\sin \theta = \frac{4}{5}$   
 $\sin \theta = \frac{4}{5}$

1	4	5
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Option #2  
 $\cos \theta = \frac{3}{5}$   
 $\cos \theta = \frac{3}{5}$

2	3	5
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Option #3  
 $\tan \theta = \frac{4}{3}$   
 $\tan \theta = \frac{4}{3}$

3	4	3
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**Q2:** What is the value of  $\angle A$ ?

(Record your **three digit** answer in the Numerical Response boxes below)

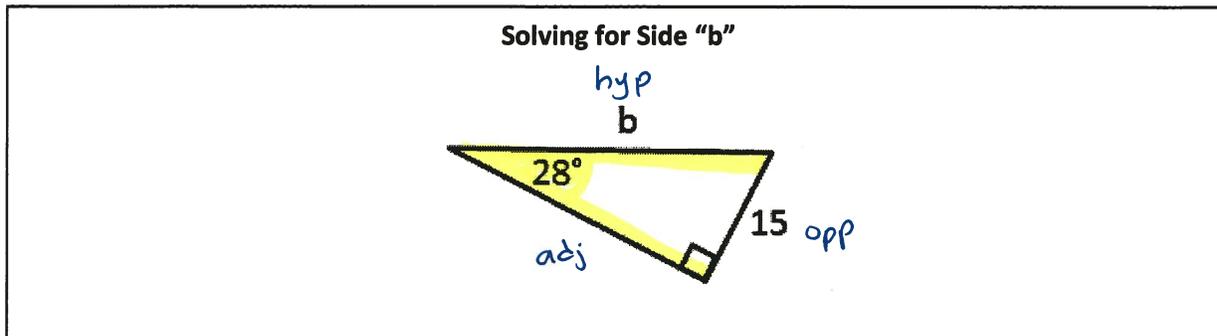
5	3	.	1
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$\sin \theta = \frac{4}{5}$   
 $\sin \theta = 0.8$   
 $\theta = \sin^{-1}(0.8)$   
 $\theta = 53.1^\circ$

$\cos \theta = \frac{3}{5}$   
 $\cos \theta = 0.6$   
 $\theta = \cos^{-1}(0.6)$   
 $\theta = 53.1^\circ$

$\tan \theta = \frac{4}{3}$   
 $\tan \theta = 1.3$   
 $\theta = \tan^{-1}(1.3)$   
 $\theta = 53.1^\circ$

Use the following information to answer Q3-Q4:



**Q3:** To solve the triangle above for side  $b$ , we will use which trigonometric ratio?

- a. Sin
- b. Cos
- c. Tan
- d. All of the above

**Q4:** What is the value of  $b$ , to the nearest tenth?

(Record your answer in the Numerical Response boxes below)

3	2	.	0
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$$\begin{aligned} \sin \theta &= \frac{o}{h} \\ \sin 28 &= \frac{15}{b} \\ 0.46947 &= \frac{15}{b} \\ \cdot b & \quad \cdot b \\ b(0.46947) &= 15 \\ \div 0.46947 & \quad \div 0.46947 \\ b &= 31.95 \\ b &\approx 32.0 \end{aligned}$$

**MARKING:**

Beginning	0.0 – 1.5
Progressing	2.0 – 2.5
Competent	3.0 – 3.5
Exemplary	4.0