Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Unit 3 Quiz Practice**

**I. Pythagorean Theorem**

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| 1. Find the missing side.See the source image | 2. In a right triangle, the length of a hypotenuse is 19 and the length of one leg is $\sqrt{5}. $ What is the length of the other leg is? |

**II. Trig Ratios**

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| 3. a. Write all 3 trig ratios for Angle A.b. Write all 3 trig ratios for Angle C.  | 4. a. Write all 3 trig ratios for Angle A (use the variables). b. Write all 3 trig ratios for Angle B (use the variables).  |
| 5. Write an equivalent co-function for the following functions below:a. sin(30)b. cos(70)c. tan(20)d. sin(56)7. If the$ \tan(\left(θ\right))=\frac{1}{3}$, find the$ \sin(\left(θ\right))$.  | 6. If the$ \cos(\left(θ\right))=\frac{8}{\sqrt{140}}$, find the$ \tan(\left(θ\right))$. 8. If the$ \sin(\left(θ\right))=\frac{\sqrt{7}}{4}$, find the$ \cos(\left(θ\right))$. |
| **III. Using Trig Ratios****Use the correct trig ratio to solve for a side or an angle.** |
| 9.  | 10.   |
| 11. Solve for Angle A.See the source image  | 12. If BA = 12, $∠C=52°$, what is side CA?See the source image |
| 13. If the tree is 100 ft tall and the person is 50 ft away from the base of the tree, what is the angle of elevation?See the source image | 14. How high is the kite from the ground?  |