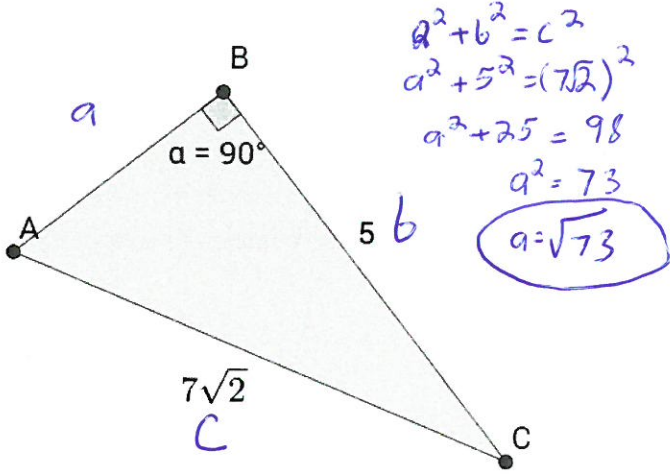


Name: AK

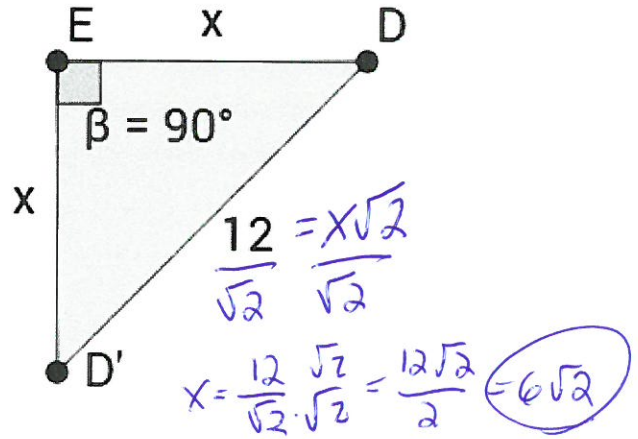
9.1-9.4 Practice Quiz

Directions: Find the missing sides of the given triangle. Please provide exact answers.

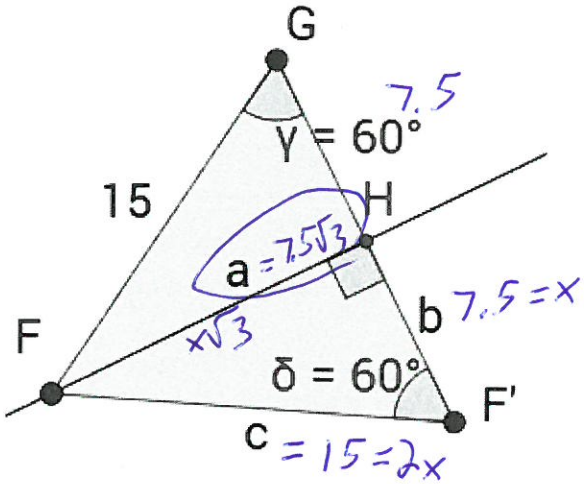
1.



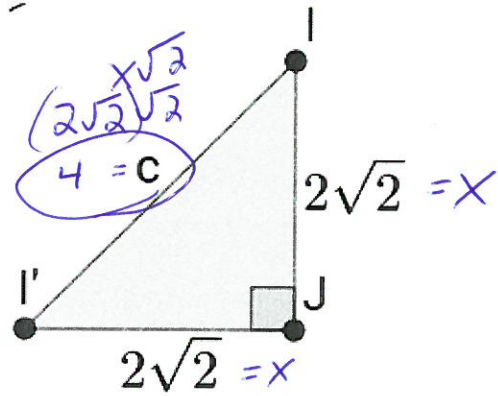
2.



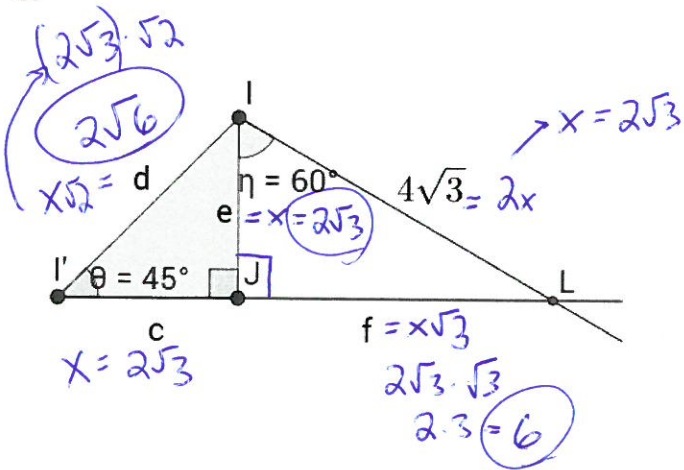
3.



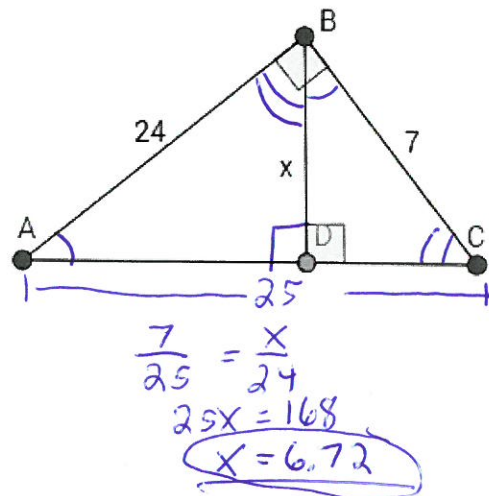
4.



5.



6.



7. Simplify the radicals.

$$\sqrt{5} + 6\sqrt{5} - \sqrt{9}$$

$$7\sqrt{5} - 3$$

$$(5\sqrt{3})^2$$

$$75$$

$$5\sqrt{2} \cdot 4\sqrt{6}$$

$$20\sqrt{12}$$

$$20 \cdot 2\sqrt{3}$$

$$40\sqrt{3}$$

$$\frac{\sqrt{60}}{\sqrt{5}} = \sqrt{12}$$

$$2\sqrt{3}$$

$$\sqrt{120} = 4\sqrt{30}$$

$$\sqrt{48x^3}$$

$$4x\sqrt{3x}$$

8. Classify the triangle by its angles given its sides.

$$7, 2, 8$$

$$49, 4, 64$$

$$49 + 4 < 64$$

Obtuse

$$(5\sqrt{2})^2 + (2\sqrt{5})^2 = (\sqrt{30})^2$$

$$50 = 20 + 30$$

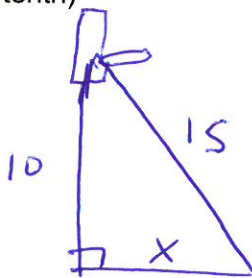
Right

$$(4\sqrt{3})^2 + (2\sqrt{7})^2 = (2\sqrt{19})^2$$

$$48 + 28 = 76$$

Right

9. If a ladder is leaned against the backboard of a basketball hoop at the level of the rim (10 feet high), and the ladder is 15 feet long, how far is the base of the ladder from the base of the basketball hoop? (Round to the nearest tenth)



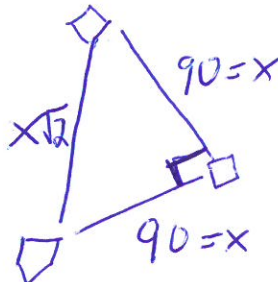
$$x^2 + 10^2 = 15^2$$

$$x^2 = 225 - 100$$

$$\sqrt{x^2} = \sqrt{125}$$

$$x = 5\sqrt{5} \text{ or } 11.2$$

10. In baseball, the bases are 90 feet apart. The line from home plate to first base forms a right angle with the line from first base to second base. How far is home plate from second base? (Round to the nearest tenth)



$$90\sqrt{2} \approx 127.3$$