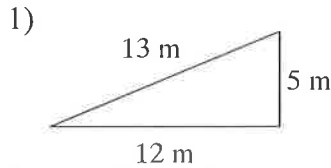


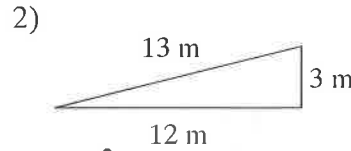
Review WS for PC #2 (9.1 - 9.2)

State if each triangle is acute, obtuse, or right. Show your work to explain your reasoning.



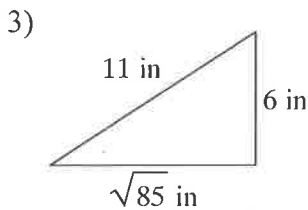
$$13^2 = 12^2 + 5^2$$

Right



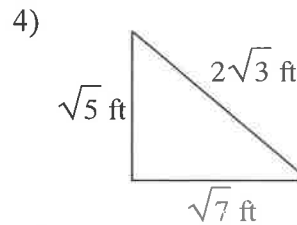
$$13^2 > 12^2 + 3^2$$

Obtuse



$$11^2 = (\sqrt{85})^2 + 6^2$$

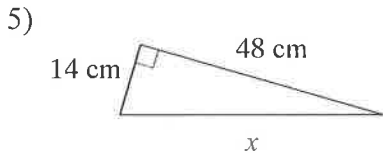
Right



$$(2\sqrt{3})^2 = (\sqrt{5})^2 + (\sqrt{7})^2$$

Right

Find the missing side of each triangle. What pythagorean triplet family does this belong to?

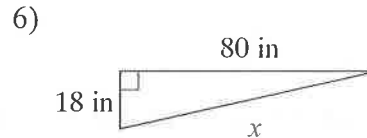


$$14^2 + 48^2 = x^2$$

$$\sqrt{2500} = \sqrt{x^2}$$

7, 24, 25

x = 50 cm

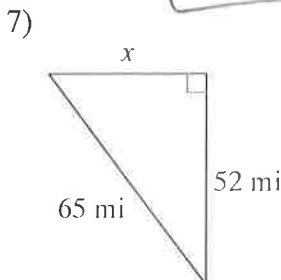


$$18^2 + 80^2 = x^2$$

$$\sqrt{6724} = \sqrt{x^2}$$

3, 4, 5

x = 82 in



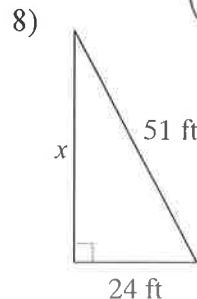
$$52^2 + x^2 = 65^2$$

$$2704 + x^2 = 4225$$

$$x^2 = 1521$$

3, 4, 5

x = 39 mi



$$24^2 + x^2 = 51^2$$

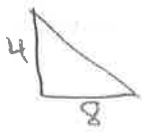
$$576 + x^2 = 2601$$

$$\sqrt{x^2} = \sqrt{2025}$$

8, 15, 17

x = 45 ft

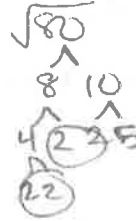
9) UPS trucks are out making deliveries. Two drivers met for lunch and are going back out on their deliveries. One driver goes 4 miles north and the other drives 8 miles east. What is the direct distance between the two drivers?



$$4^2 + 8^2 = x^2$$

$$16 + 64 = x^2$$

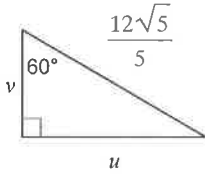
$$\sqrt{80} = x^2$$



$$x = 4\sqrt{5} \text{ mi}$$

Find the missing side lengths. Leave your answers as radicals in simplest form.

10)



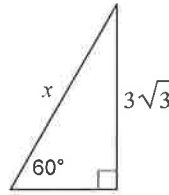
$$u = \frac{6\sqrt{5} \cdot \sqrt{3}}{5}$$

$$u = \frac{6\sqrt{15}}{5}$$

$$v = \frac{12\sqrt{5}}{5} \div 2$$

$$v = \frac{6\sqrt{5}}{5}$$

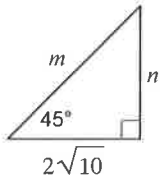
11)



$$y = 3$$

$$x = 6$$

12)



$$m = 2\sqrt{10} \cdot \sqrt{2}$$

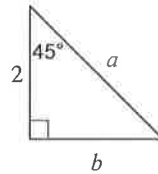
$$= 2\sqrt{20}$$



$$m = 4\sqrt{5}$$

$$n = 2\sqrt{10}$$

13)

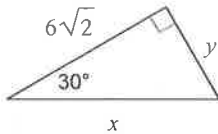


$$b = 2$$

$$a = 2\sqrt{2}$$

Find the area and perimeter of the triangle. Leave your answers in simplest radical form.

14)



$$\frac{\sqrt{3}}{\sqrt{3}} \cdot \frac{6\sqrt{2}}{\sqrt{3}} = \frac{y\sqrt{3}}{\sqrt{3}}$$

$$y = \frac{6\sqrt{6}}{3} = 2\sqrt{6}$$

$$x = 2 \cdot 2\sqrt{6}$$

$$x = 4\sqrt{6}$$

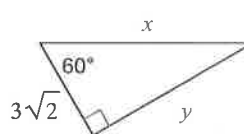
$$P = 6\sqrt{2} + 4\sqrt{6}$$

$$A = \frac{1}{2} \cdot 2\sqrt{6} \cdot 6\sqrt{2}$$

$$= 6\sqrt{12}$$

$$A = 12\sqrt{3}$$

15)



$$y = 3\sqrt{2} \cdot \sqrt{3}$$

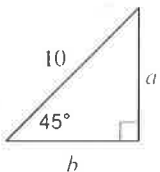
$$y = 3\sqrt{6}$$

$$x = 2 \cdot 3\sqrt{2} \quad x = 6\sqrt{2}$$

$$P = 9\sqrt{2} + 3\sqrt{6}$$

$$A = \frac{1}{2} \cdot 3\sqrt{2} \cdot 3\sqrt{6} \quad A = 9\sqrt{3}$$

16)



$$\frac{10}{\sqrt{2}} = \frac{a\sqrt{2}}{\sqrt{2}}$$

$$\frac{10\sqrt{2}}{2} = a$$

$$a = 5\sqrt{2}$$

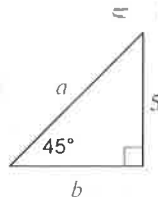
$$b = 5\sqrt{2}$$

$$P = 10\sqrt{2} + 10$$

$$A = \frac{1}{2} \cdot 5\sqrt{2} \cdot 5\sqrt{2}$$

$$= \frac{25}{2} \sqrt{4} = 25 \quad A = 25$$

17)



$$a = 5\sqrt{5} \cdot \sqrt{2}$$

$$a = 5\sqrt{10}$$

$$b = 5\sqrt{5}$$

$$P = 10\sqrt{5} + 5\sqrt{10}$$

$$A = \frac{1}{2} \cdot 5\sqrt{5} \cdot 5\sqrt{5}$$

$$A = \frac{25}{2} \sqrt{5} \quad \text{or} \quad 12.5\sqrt{5}$$