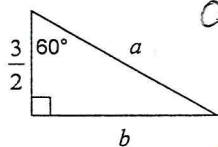


Find the missing side lengths. Leave your answers as radicals in simplest form.

1)

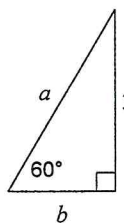


$$a = \frac{3}{2}(2) = \frac{6}{2} = 3$$

$$b = \frac{3}{2}(\sqrt{3}) = \frac{3\sqrt{3}}{2}$$

$$a = 3, b = \frac{3\sqrt{3}}{2}$$

2)



$$b = \frac{3}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{3\sqrt{3}}{3}$$

$$b = \sqrt{3}$$

$$a = 2\sqrt{3}$$

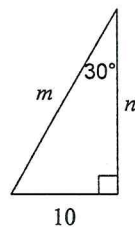
$$a = 2\sqrt{3}, b = \sqrt{3}$$

hypot = orange

medium = yellow

small = green

3)

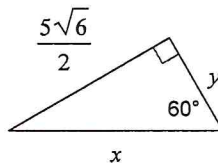


$$m = 10 \cdot 2 = 20$$

$$n = 10\sqrt{3}$$

$$m = 20, n = 10\sqrt{3}$$

4)

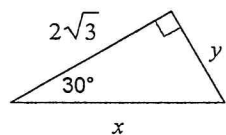


$$y = \frac{5\sqrt{6}}{2} \div \sqrt{3} = \frac{5}{2} \cdot \frac{\sqrt{6}}{\sqrt{3}} = \frac{5\sqrt{2}}{2}$$

$$x = 2\left(\frac{5\sqrt{2}}{2}\right) = \frac{10\sqrt{2}}{2} = 5\sqrt{2}$$

$$x = 5\sqrt{2}, y = \frac{5\sqrt{2}}{2}$$

5)

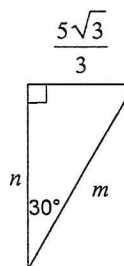


$$y = \frac{2\sqrt{3}}{\sqrt{3}} = 2$$

$$x = 2 \cdot 2 = 4$$

$$x = 4, y = 2$$

6)

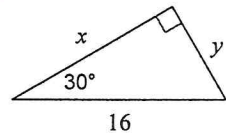


$$m = 2\left(\frac{5\sqrt{3}}{3}\right) = \frac{10\sqrt{3}}{3}$$

$$n = \frac{5\sqrt{3}}{3} \cdot \frac{\sqrt{3}}{1} = \frac{5 \cdot 3}{3} = 5$$

$$m = \frac{10\sqrt{3}}{3}, n = 5$$

7)

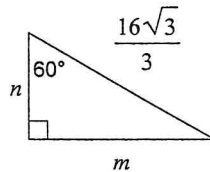


$$y = \frac{16}{2} = 8$$

$$x = 8\sqrt{3}$$

$$x = 8\sqrt{3}, y = 8$$

8)

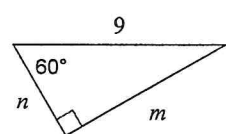


$$n = \frac{16\sqrt{3}}{3} \div 2 = \frac{16\sqrt{3}}{3 \cdot 2} = \frac{8\sqrt{3}}{3}$$

$$m = \frac{8\sqrt{3}}{3} \cdot \frac{\sqrt{3}}{1} = \frac{8 \cdot 3}{3} = 8$$

$$m = 8, n = \frac{8\sqrt{3}}{3}$$

9)

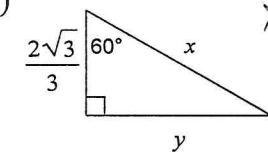


$$n = 9 \div 2 = \frac{9}{2}$$

$$m = \frac{9}{2}(\sqrt{3}) = \frac{9\sqrt{3}}{2}$$

$$m = \frac{9\sqrt{3}}{2}, n = \frac{9}{2}$$

10)



$$x = 2\left(\frac{2\sqrt{3}}{3}\right) = \frac{4\sqrt{3}}{3}$$

$$y = \frac{2\sqrt{3}}{3} \cdot \frac{\sqrt{3}}{1} = \frac{2 \cdot 3}{3} = 2$$

$$x = \frac{4\sqrt{3}}{3}, y = 2$$