

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

# Special Right Triangles and Trig Ratios Warm Up

1. Directions: Practice simplifying fractions.

$$\frac{3 \div 3}{9 \div 3}$$

$$\frac{1}{3}$$

$$\frac{4 \div 4}{12 \div 4}$$

$$\frac{1}{3}$$

$$\frac{10 \div 5}{25 \div 5}$$

$$\frac{2}{5}$$

$$\frac{15 \div 5}{25 \div 5}$$

$$\frac{3}{5}$$

$$\frac{21 \div 3}{27 \div 3}$$

$$\frac{7}{9}$$

$$\frac{26 \div 13}{39 \div 13}$$

$$\frac{2}{3}$$

$$\frac{3\sqrt{3}}{9} = \frac{\sqrt{3}}{3}$$

$$\frac{2\sqrt{2}}{4} = \frac{\sqrt{2}}{2}$$

$$\frac{9}{3\sqrt{3}} = \sqrt{3}$$

$$\frac{8}{2\sqrt{2}} = 2\sqrt{2}$$

$$\frac{3}{\sqrt{3}} = \frac{3\sqrt{3}}{\cancel{\sqrt{3}}}$$

$$\frac{4}{\sqrt{2}} = \frac{4\sqrt{2}}{2}$$

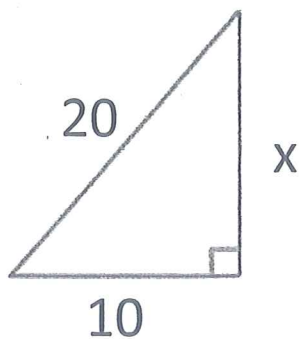
$$\frac{18\sqrt{3}}{21} = \frac{6\sqrt{3}}{7}$$

$$\frac{12}{3\sqrt{3}} = \frac{4\sqrt{3}}{3}$$

$$\frac{4}{\sqrt{3}} = \frac{4\sqrt{3}}{3}$$

Practice Pythagorean Theorem. Solve for x.

2.

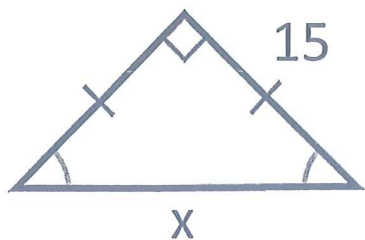


$$10^2 + x^2 = 20^2$$

$$\sqrt{x^2} = \sqrt{300}$$

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

3.

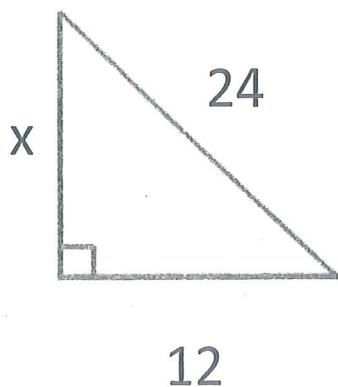


$$15^2 + 15^2 = x^2$$

or 45-45-90  $\Delta$

$$x = 15\sqrt{2}$$

4.



$$x^2 + 12^2 = 24^2$$

$$\sqrt{x^2} = \sqrt{432}$$

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

$$1^2 = 1$$

$$2^2 = 4$$

$$3^2 = 9$$

$$4^2 = 16$$

$$5^2 = 25$$

$$6^2 = 36$$

$$7^2 = 49$$

$$8^2 = 64$$

$$9^2 = 81$$

$$10^2 = 100$$

$$11^2 = 121$$

$$12^2 = 144$$

$$15^2 = 225$$