

Name \_\_\_\_\_

## Reducing Fractions by Prime Factoring

Factor the numerator and denominator and cross out all numbers that are in BOTH the top and bottom. Multiply what remains and you have reduced the fraction.

$$\frac{16}{18} = \frac{1 \times 2 \times 2 \times 2 \times 2}{1 \times 2 \times 3 \times 3} \rightarrow \frac{16}{18} = \frac{\cancel{1} \times \cancel{2} \times \cancel{2} \times \cancel{2} \times 2}{\cancel{1} \times \cancel{2} \times 3 \times 3} = \frac{8}{9}$$


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$$\frac{9}{18} = \frac{1 \times 3 \times 3}{1 \times 2 \times 3 \times 3} \rightarrow \frac{9}{18} = \frac{\cancel{1} \times \cancel{3} \times \cancel{3}}{\cancel{1} \times 2 \times \cancel{3} \times \cancel{3}} = \frac{1}{2}$$

$$\frac{3}{12}$$

$$\frac{6}{16}$$

$$\frac{16}{32}$$

$$\frac{18}{32}$$

$$\frac{16}{36}$$

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

$$\frac{12}{48}$$

$$\frac{6}{8}$$

$$\frac{8}{100}$$

$$\frac{15}{25}$$