

**Math 7 Notes**  
(Section 4.6)  
**Multiplying Fractions**

**To multiply fractions and mixed numbers:**

- \* make sure all numbers are written in fraction form.

$$4\frac{2}{5} = \frac{22}{5} \quad 12 = \frac{12}{1} \quad -6 = \frac{-6}{1}$$

- \* give yourself plenty of room above and below the problem

- \* look for common factors to simplify fractions

- \* multiply numbers in numerator
- \* multiply numbers in denominator

$$\frac{12}{5} \cdot \frac{5}{8}$$

$$\frac{2}{16} = \frac{1}{8}$$

- \* Check to be sure answer is in simplest form

- \* Check your signs!! Same signs? Answer POSITIVE  
Different signs? Answer NEGATIVE

**Examples:**

$$9\frac{3}{8} \times \frac{6}{21} \times \frac{14}{25}$$

$$\frac{3}{8} \cdot \frac{2}{7} \cdot \frac{2}{5}$$

$$\frac{6^{\cancel{1}2}}{\cancel{2}^1 \cdot 2} = \frac{3}{1}$$

$$\frac{3}{4} \cdot \frac{1}{1} \cdot \frac{2}{1} = \frac{3 \cdot 1 \cdot 1}{2 \cdot 1 \cdot 1} = \frac{3}{2} = 1\frac{1}{2}$$

**Examples:**

$$\frac{3}{5} \cdot \frac{4}{5}$$

$$\frac{3 \cdot 4}{5 \cdot 5}$$

$$\frac{12}{25}$$

$$3\frac{1}{2} \cdot \frac{2}{1}$$

$$\frac{7}{2} \cdot \frac{2}{1}$$

$$7\frac{4}{2} = 7\frac{2}{1} = 8$$

**Examples:**

$$(-12) \left(1\frac{2}{3}\right)$$

$$\frac{-4}{1} \cdot \frac{5}{3}$$

$$-20$$

$$\frac{8}{5} \cdot \frac{-3}{1}$$

$$\frac{8}{5} \cdot \frac{-3}{1}$$

$$\frac{8}{5} \cdot \frac{-3}{1} = -\frac{24}{5} = -4\frac{4}{5}$$