Name: Period:

Int 1 | Notes 2-6 | Unit 2

Notes 2-6
Multiply/Divide Fractions

Int 1 **Unit 2**

Multiply Fractions:

- Multiply straight across!

*You do NOT Need Common denominators.

$$\frac{4}{9}\cdot\frac{3}{12}$$

Simplify!

$$\frac{1}{9}$$

Ex. 1: $2\left(-\frac{3}{4}\right) = -\frac{6 \div 2}{4 \div 2} = -\frac{3}{2}$

Ex. 3: $\frac{3}{5}\cdot\left(-\frac{1}{2}\right) = -\frac{3}{10}$

Ex. 2: $-\frac{2}{7}\cdot\frac{3}{8} = -\frac{3}{28}$

Ex. 4: $-\frac{1}{3}\left(-\frac{3}{7}\right) = +\frac{1}{7}$

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Notes 2-6

Int 1 **Multiply/Divide Fractions** **Unit 2**

Change Mixed Numbers to IMPROPER FRACTIONS:

Must change to Improper!

$4\frac{2}{5}$ $4 \cdot 5 = 20 + 2 = \frac{22}{5}$

Ex. 5: $\frac{1}{2} \cdot 4\frac{2}{5}$

$\frac{1}{2} \cdot \frac{22}{5} = \frac{11}{5}$

Ex. 6: $\frac{1}{4} \cdot 8\frac{4}{9}$ $72+4$

$\frac{1}{4} \cdot \frac{76}{9} = \frac{19}{9} = 2\frac{1}{9}$

$2\overline{)76}$ 38 $-6\downarrow$ 16 $2\overline{)38}$ 19

Ex. 7: $5\frac{1}{3} \cdot 3$

Ex. 8: $-1\frac{7}{8} \cdot \left(-2\frac{2}{5}\right)$

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Notes 2-6

Int 1 **Multiply/Divide Fractions** **Unit 2**

Divide Fractions:

Keep. CHANGE. FLIP.

the first fraction. ÷ to • the 2nd fraction

Ex. 9: $3 \div \frac{1}{4}$

$\frac{3}{1} \cdot \frac{4}{1} = \frac{12}{1} = 12$

Ex. 10: $\frac{1}{3} \div \frac{5}{1}$

$\frac{1}{3} \cdot \frac{1}{5} = \frac{1}{15}$

Ex. 11: $\frac{3}{4} \div \left(-\frac{1}{2}\right)$

$\frac{3}{4} \cdot \frac{2}{1} = -\frac{6 \div 2}{4 \div 2} = -\frac{3}{2}$

Ex. 12: $-\frac{3}{4} \div \frac{1}{4}$

$-\frac{3}{\cancel{4}} \cdot \frac{\cancel{4}^{1}}{1} = -\frac{3}{1} = -3$

$\frac{-12 \div 4}{4 \div 4} = \frac{-3}{1}$