

$$2 - 3 / 2 - 4$$

Multiplying and Dividing Rational Numbers



Products/Quotients

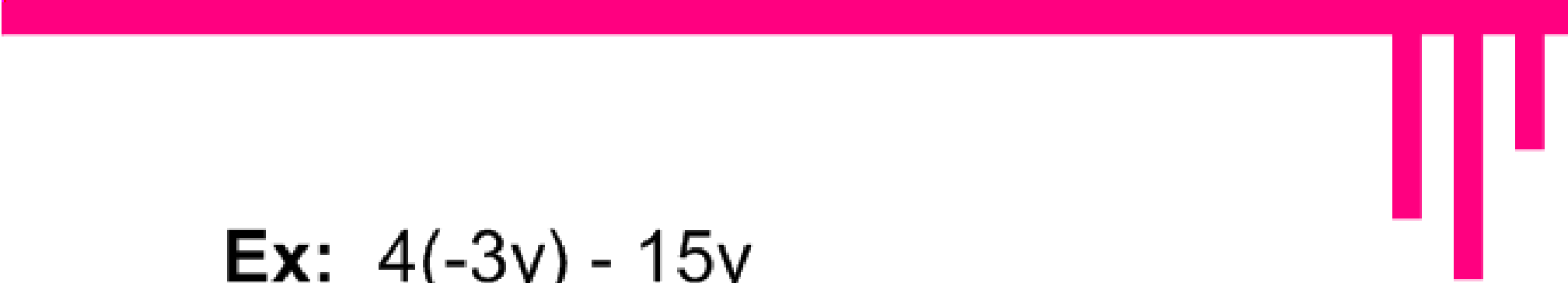
same sign:

different signs:



Ex: $4(-5)$

Ex: $(-12)(-6)$



Ex: $4(-3y) - 15y$

Ex: $13x + (-6)(4x)$

Multiplying Fractions....

$$\text{Ex: } \left(-\frac{3}{4}\right)\left(\frac{3}{8}\right)$$

$$\text{Ex: } \left(-\frac{2}{3}\right)\left(-\frac{3}{4}\right)$$

Ex: Evaluate $(-\frac{3}{7})x^3$ if $x = -\frac{1}{2}$

$$\left(-\frac{3}{7}\right)\left(-\frac{1}{2}\right)^3$$

$$\left(-\frac{3}{7}\right)\left(-\frac{1}{8}\right)$$

$$\frac{3}{56}$$

$$\frac{-1^3}{2^3} \quad \begin{array}{l} -1 \cdot -1 \cdot -1 \\ \sqrt{\quad} \\ 1 \cdot -1 \\ -1 \end{array}$$

Ex: $-77 \div 11 = -7$

Ex: $\frac{-64}{-4} + 16$

$$4 \overline{) 164} \\ \underline{124} \\ 40 \\ \underline{40} \\ 0$$

Ex: Simplify $\frac{-3(-12 + 8)}{7 + (-5)}$.

$$\frac{-3(-4)}{2}$$

$$\frac{12}{2}$$

$$\textcircled{6}$$

Ex: Simplify $\frac{24 - 6a}{3}$.

$8 - 2a$

Ex: Simplify $\frac{-8f + (-16g)}{8}$.

$-f + -2g$
 $-f - 2g$

$\begin{array}{l} | \\ + \\ | \end{array}$ $\begin{array}{l} | \\ + \\ | \end{array}$

Ex: $-\frac{2}{5} \div \frac{1}{4}$

$$-\frac{2}{5} \cdot \frac{4}{1} = \left(-\frac{8}{5}\right) \left(-\frac{3}{5}\right)$$

Ex: $-\frac{2}{3} \div \frac{12}{1}$

$$-\frac{2}{3} \cdot \frac{1}{12} = -\frac{2}{36} = \left(-\frac{1}{18}\right)$$



Homework:

2-3 / 2-4 WS