

2.4b Dividing Fractions

Rules

\* Multiply by the reciprocal

keep, change, flip  
the first one      the sign to + or -

Ex. 1  $\frac{2}{3} \div \frac{8}{9}$

$$\frac{2}{3} \cdot \frac{9}{8} = \frac{2 \cdot 9}{3 \cdot 8} = \frac{18}{24} = \frac{3}{4}$$

Ex. 2  $3\frac{1}{2} \div (-1\frac{1}{4})$

$$3\frac{1}{2} \div (-1\frac{1}{4}) = \frac{7}{2} \div (-\frac{5}{4}) = \frac{7}{2} \cdot (-\frac{4}{5}) = -\frac{28}{10} = -2\frac{4}{5}$$

Ex. 3  $-5\frac{1}{5} \div 2\frac{1}{3}$

$$-5\frac{1}{5} \div 2\frac{1}{3} = -\frac{26}{5} \div \frac{7}{3} = -\frac{26}{5} \cdot \frac{3}{7} = -\frac{78}{35} = -2\frac{8}{35}$$

Ex. 4  $-\frac{1}{7} \left[ \frac{4}{5} \cdot (-7) \right]$

$$-\frac{1}{7} \left[ \frac{4}{5} \cdot (-7) \right] = -\frac{1}{7} \left[ -\frac{28}{5} \right] = \frac{4}{5}$$

Multiplying Decimals

Ex. 1  $3.42 \cdot 2.4$

*Count the # of digits behind the decimal*

$$\begin{array}{r} 3.42 \\ \times 2.4 \\ \hline 1368 \\ 6840 \\ \hline 7488 \end{array}$$

7.488

Ex. 2  $8.13 \cdot 2.1$

$$\begin{array}{r} 8.13 \\ \times 2.1 \\ \hline 1826 \\ 16260 \\ \hline 17073 \end{array}$$

17.073

Classwork

- ①  $-0.25(-1)$
- ②  $-\frac{7}{10} \div \frac{2}{5}$
- ③  $-\frac{1}{5} \div 20$
- ④  $-2\frac{4}{5} \div (-7)$

HW: p. 68 #10-17, 26-28, 35, 37