

2.3 Dividing Mixed Numbers

EQ: How do you divide when you have mixed numbers?

★ Write each mixed number as an improper fraction. Then, divide as normal.

Example 1: $2\frac{1}{4} \div \frac{3}{8}$

$$\begin{array}{l} 2 \times 4 = 8 \\ 8 + 1 = 9 \end{array}$$

$$\frac{9}{4} \div \frac{3}{8}$$

★ Keep, Change
Flip

$$\frac{9}{4} \times \frac{8}{3}$$

$$\frac{3}{1} \times \frac{2}{1} = \frac{6}{1} = 6$$

Example 2:

$$\begin{array}{l} 3 \times 6 \\ 18 + 5 = 23 \end{array}$$

$$3\frac{5}{6} \div 1\frac{2}{3}$$

$$\begin{array}{l} 1 \times 3 = 3 \\ 3 + 2 = 5 \end{array}$$

$$\frac{23}{6} \div \frac{5}{3}$$

$$\frac{23}{6} \times \frac{3}{5}$$

$$\frac{23}{2} \times \frac{1}{5} = \frac{23}{10} = 2\frac{3}{10}$$

$$\begin{array}{r} \textcircled{2} \\ 10 \overline{) 23} \\ \underline{20} \\ \textcircled{3} \end{array}$$

Example 3:

$$\begin{array}{l} 5 \times 4 = 20 \\ 20 + 1 = 21 \end{array}$$

$$5\frac{1}{4} \div 1\frac{1}{8}$$

$$\begin{array}{l} 1 \times 8 = 8 \\ 8 + 1 = 9 \end{array}$$

$$\frac{21}{4} \div \frac{9}{8}$$

$$\frac{21}{4} \times \frac{8}{9}$$

$$\frac{7}{1} \times \frac{2}{3} = \frac{14}{3} = 4\frac{2}{3}$$