

8.4 Mixed Numbers

Review

$$\frac{3}{5} \times \frac{2}{7} = \frac{6}{35}$$

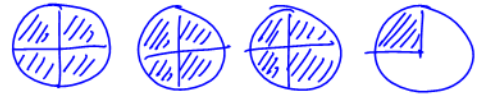
multiply numerators
multiply denominators.

$$\frac{\overset{1}{\cancel{4}}}{\underset{1}{\cancel{5}}} \times \frac{\overset{1}{\cancel{3}}}{\underset{2}{\cancel{8}}} \times \frac{\overset{1}{\cancel{2}}}{\underset{3}{\cancel{9}}} = \frac{1}{3}$$

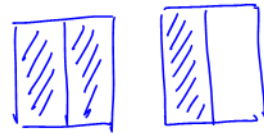
- can cross reduce any
numerator with any
denominator.

Mixed Numbers

eg $3\frac{1}{4}$



eg $1\frac{1}{2}$



to convert to improper fractions

- * denominator \times whole + numerator = numerator
- * denominator stays the denominator.

$$\text{eg } 3\frac{1}{4} = \frac{13}{4}$$

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

Multiplying Mixed Numbers

* always convert to an improper fraction!

$$\begin{aligned} \text{eg } 2\frac{1}{2} \times 1\frac{2}{5} &= \\ \cancel{5}^1 \times \frac{7}{\cancel{5}} &= \frac{7}{2} \\ &= 3\frac{1}{2} \end{aligned}$$

* Any whole number has a denominator of 1

$$1\frac{3}{4} \times 6$$

$$\frac{7}{\cancel{4}} \times \frac{\cancel{6}^3}{1} = \frac{21}{2} = 10\frac{1}{2}$$

① convert to improper fractions

② cross reduce if possible

③ multiply numerators
multiply denominators

④ convert back to mixed number.

Finish worksheet before you leave.

p220 #4,7,10-16 for HW