

Multiply Fractions and Mixed Numbers

Same Denominators / Different Denominators

multiply straight across

$$\frac{2}{3} \times \frac{2}{5} = \frac{4}{15}$$

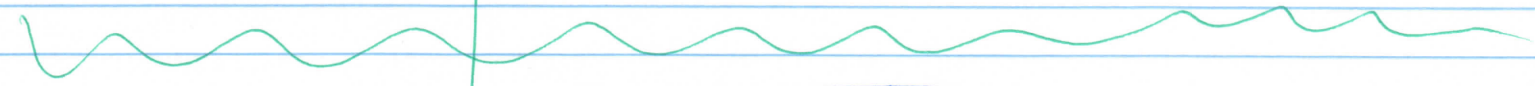
$$\frac{\text{numerator}}{\text{denominator}} \times \frac{\text{numerator}}{\text{denominator}} = \frac{\text{numerator}}{\text{denominator}}$$

$$\frac{2}{3} \times \frac{5}{6} = \frac{10}{18}$$

Denominators don't matter

$$\frac{10}{18} \div \frac{2}{2} = \frac{5}{9}$$

$$\frac{2}{3} \times \frac{3}{4} \rightarrow \frac{2 \times 3}{3 \times 4} = \frac{6}{12} \div \frac{6}{6} = \frac{1}{2}$$



Mixed Numbers

$$2\frac{1}{2} \times 1\frac{1}{4}$$

MN → IF → MN
(x)

$$\frac{5}{2} \times \frac{5}{4} = \frac{25}{8}$$

* change to Improper fraction

* multiply

$$\begin{array}{r} 3 \\ 8 \overline{)25} \\ \underline{-24} \\ 1 \end{array} = 3\frac{1}{8}$$

* change back to mixed number

SIMPLIFY

whole numbers

$$7 \times \frac{1}{2}$$

↓

$$\frac{7}{1} \times \frac{1}{2} = \frac{7}{2}$$

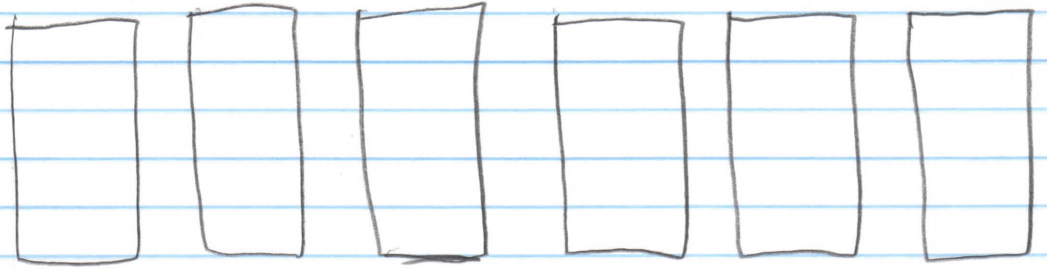
$$\begin{array}{r} 3 \\ 2 \overline{)7} \\ \underline{-6} \\ 1 \end{array} \rightarrow \boxed{3 \frac{1}{2}}$$

* put a 1 under the whole number and multiply

$$\frac{\text{whole number}}{1} \times \frac{\text{numerator}}{\text{denominator}}$$

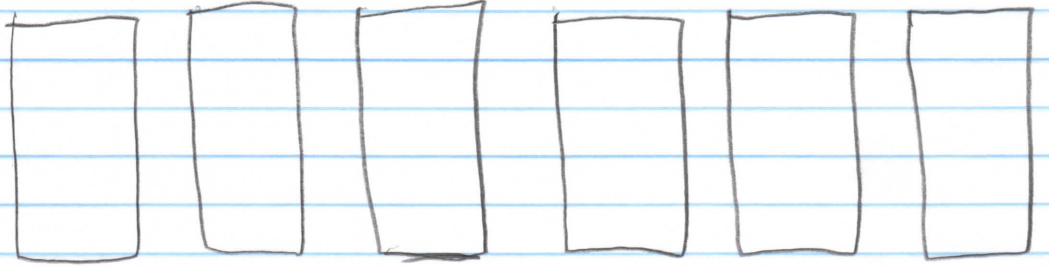
Multiplying Fractions

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

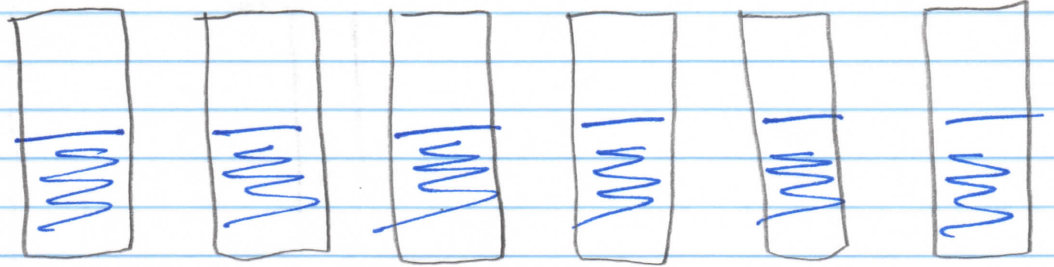


Multiplying Fractions

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

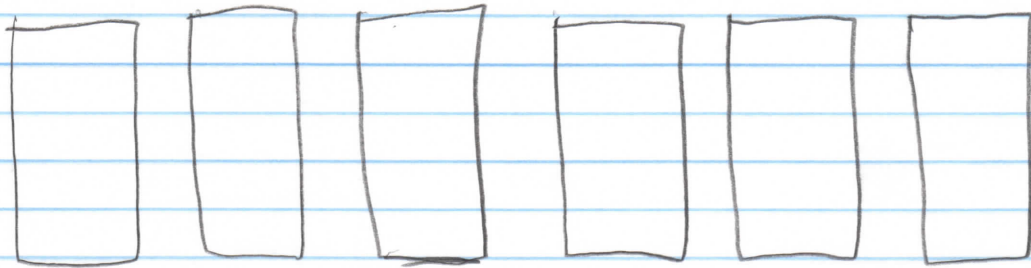


cut into
 $\frac{1}{2}$

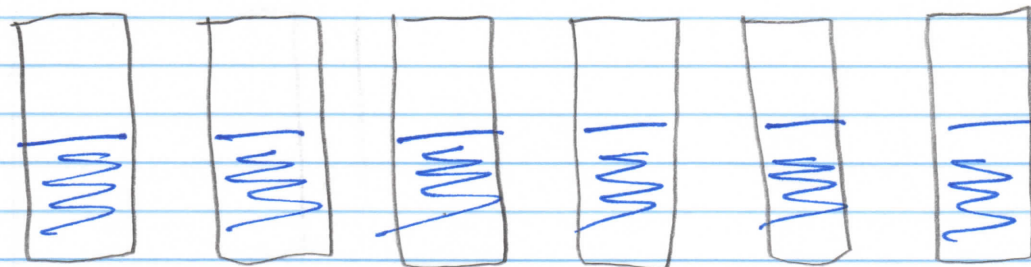


Multiplying Fractions

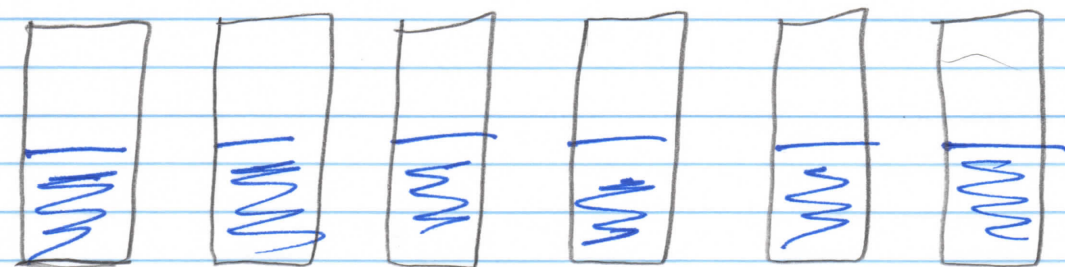
$$6 \times \frac{1}{2}$$



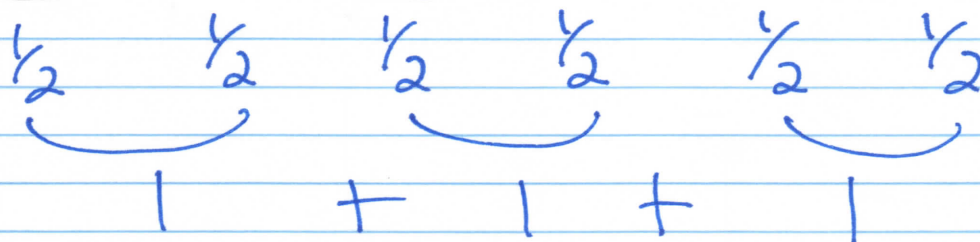
cut into
 $\frac{1}{2}$



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



$$\frac{6}{2} = \boxed{3}$$



$$\boxed{3}$$

$$\frac{2}{3} \cdot \frac{4}{5}$$

1	2	3	4	5

$$\frac{2}{3} \cdot \frac{4}{5}$$

	1	2	3	4	5

	1	2	3	4	5
1					
2					
3					

$$\frac{2}{3} \cdot \frac{4}{5}$$

	1	2	3	4	5

	1	2	3	4	5
1					
2					
3					

$$\frac{2}{3} \cdot \frac{4}{5}$$

	1	2	3	4	5
1					
2					
3					

$$\frac{2}{3} \cdot \frac{4}{5} = \frac{8}{15}$$

↪ $\frac{8}{15}$