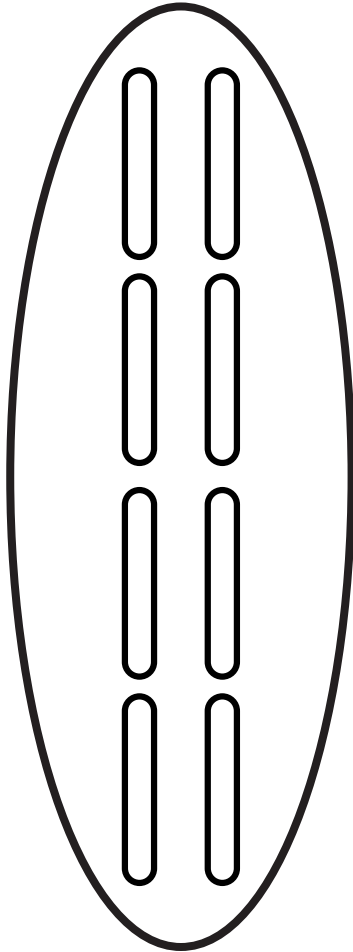


Display Master: Key Ideas: Define Proportionality

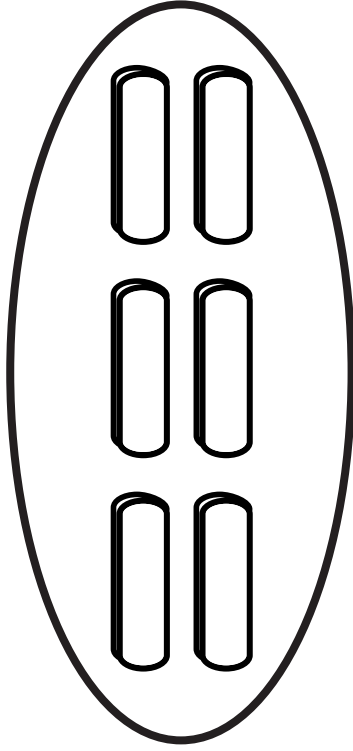
- A proportion is an equation made up of 2 equivalent ratios.
- A proportional relationship exists when 2 ratios are equivalent.

Display Master: Hot Dogs to Hot Dog Buns A

hot dogs



hot dog buns



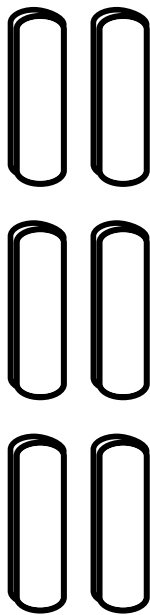
Display Master: Hot Dogs to Hot Dog Buns B

hot dogs



8

hot dog buns



6

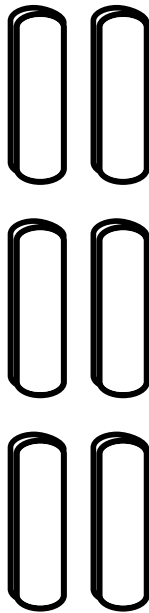
Display Master: Hot Dogs to Hot Dog Buns C

hot dogs



8

hot dog buns



6

$$\begin{array}{r} 8 \text{ hot dogs} \\ \times 3 \\ \hline 6 \text{ hot dog buns} \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 24 \text{ hot dogs} \\ \hline 18 \text{ hot dog buns} \end{array}$$

Display Master: Hot Dogs to Hot Dog Buns D

$$\begin{array}{c} \div 2 \\ \begin{array}{c} 8 \\ \hline 6 \end{array} = \begin{array}{c} 4 \\ \hline 3 \end{array} \\ \div 2 \end{array}$$

$$\begin{array}{c} \div 6 \\ \begin{array}{c} 24 \\ \hline 18 \end{array} = \begin{array}{c} 4 \\ \hline 3 \end{array} \\ \div 6 \end{array}$$

Display Master: Hot Dogs to Hot Dog Buns E

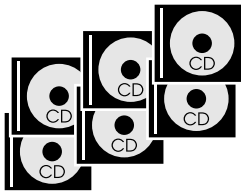
$$\frac{8}{6} = \frac{24}{18} \rightarrow \text{Proportional Relationship}$$

Display Master: DVDs to CDs A

Day 1



Day 1



2 DVDs

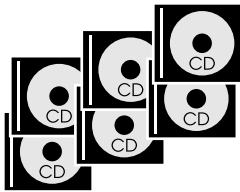
6 CDs

Display Master: DVDs to CDs B

Day 1



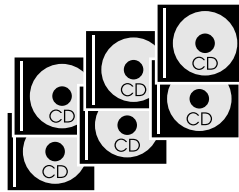
Day 1



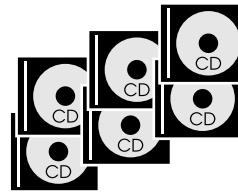
Day 4



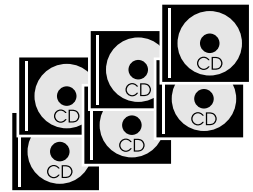
Day 1



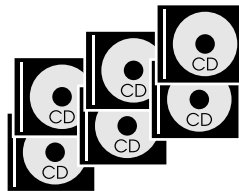
Day 2



Day 3



Day 4



2 DVDs

6 CDs

8 DVDs

24 CDs

4 times as many DVDs, 4 times as many CDs:

$$\frac{2 \text{ DVDs} \times 4}{6 \text{ CDs} \times 4} = \frac{8 \text{ DVDs}}{24 \text{ CDs}}$$

Display Master: DVDs to CDs C

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

Diagram illustrating the simplification of the fraction $\frac{2}{6}$ to $\frac{1}{3}$ using division:

- Top arrow: $\div 2$ (from 2 to 1)
- Bottom arrow: $\div 2$ (from 6 to 3)

$$\frac{8}{24} = \frac{1}{3}$$

Diagram illustrating the simplification of the fraction $\frac{8}{24}$ to $\frac{1}{3}$ using division:

- Top arrow: $\div 8$ (from 8 to 1)
- Bottom arrow: $\div 8$ (from 24 to 3)

Display Master: DVDs to CDs D

$$\frac{2 \text{ DVDs}}{6 \text{ CDs}} = \frac{8 \text{ DVDs}}{24 \text{ CDs}}$$