

Proportions

6th Grade Mathematics

Mr. Wong

6-2 Proportions

Ex. 1 Solve each proportion. Round to the nearest tenth.

$$\frac{4}{15} = \frac{a}{75}$$

$$15 \cdot a = 4 \cdot 75$$

$$15a = 300$$

$$\frac{15}{15} = \frac{300}{15}$$

$$a = 20$$

- Cross multiply.
- Cover the variable.
- What doesn't belong?
- Do the opposite.
- Remember that a letter next to a number is multiplication.

6-2 Proportions

Ex. 2 Solve each proportion. Round to the nearest tenth.

$$\begin{array}{r} \frac{6}{25} = \frac{c}{80} \\ 6 \cdot 80 = 25 \cdot c \\ 480 = 25c \\ \frac{480}{25} = \frac{25c}{25} \end{array}$$

$$19.2 = c$$

- Cross multiply.
- Cover the variable.
- What doesn't belong?
- Do the opposite.
- Remember that a letter next to a number is multiplication.

(Ex. 3) Five posters cost \$12.50. At this rate, how many posters can you buy for \$55?

of posters

cost

$$\begin{array}{r|l} 5 & x \\ \hline 12.50 & 55 \end{array}$$

$$5 \cdot 55 = 12.50 \cdot x$$

$$275 = 12.50x$$

$$12.50 \quad | \quad 12.50$$

$$22 = x$$

- What are the facts?
- Posters and Cost
- Write the proportions.
- Cross multiply.
- Cover the variable.
- What doesn't belong?
- Do the opposite.
- Remember that a letter next to a number is multiplication.

(Ex. 4) Four tea bags are needed to make a gallon of iced tea. How many tea bags are needed to make six gallons?

tea bags

gallons

$$\begin{array}{r} 4 \\ \hline 1 \end{array} \times \frac{x}{6}$$
$$4 \cdot 6 = 1 \cdot x$$
$$24 = 1x$$
$$24 = x$$

- What are the facts?
- Tea Bags and Gallons
- Write the proportions.
- Cross multiply.
- Cover the variable.
- What doesn't belong?