

1-8-14  
5<sup>th</sup> Geo

Proportion

$$\frac{3}{6} = \frac{2}{4}$$

Americ: cross product

Real name is means-extremes

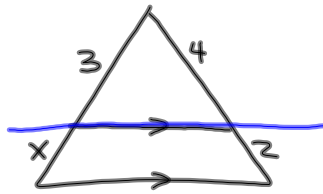
①

$$\frac{n}{6} = \frac{6}{9}$$
$$\frac{9n}{9} = \frac{36}{9}$$
$$n = 4$$

②

$$\frac{n+1}{3} = \frac{n+2}{4}$$
$$4(n+1) = 3(n+2)$$
$$4n+4 = 3n+6$$
$$\begin{array}{r} -3n \quad -3n \\ \hline n+4 = 6 \\ \hline -4 \quad -4 \\ \hline n = 2 \end{array}$$

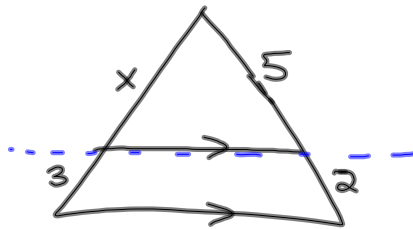
### Side-Splitter



$$\frac{3}{x} = \frac{4}{2}$$

$$4x = 6$$

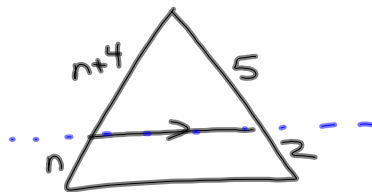
$$x = \frac{3}{2} = 1\frac{1}{2}$$



$$\frac{x}{3} = \frac{5}{2}$$

$$2x = 15$$

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



$$\frac{n+4}{n} = \frac{5}{2}$$

$$5n = 2(n+4)$$

$$5n = 2n + 8$$

$$\begin{array}{r} 5n \\ - 2n \\ \hline 3n = 8 \end{array}$$

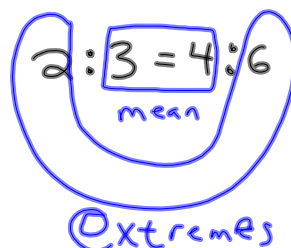
$$\frac{3n}{3} = \frac{8}{3}$$

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



### Means-Extremes

$$\frac{2}{3} = \frac{4}{6}$$



1-8-14  
6<sup>th</sup> Geo

$$\frac{2}{3} = \frac{4}{6}$$

America: cross product

Real name: Means-Extremes Prop

$$\frac{2}{3} = \frac{4}{6}$$

means  
Extremes

①  $\frac{6}{n} = \frac{9}{6}$

$$9n = 36$$
$$n = 4$$

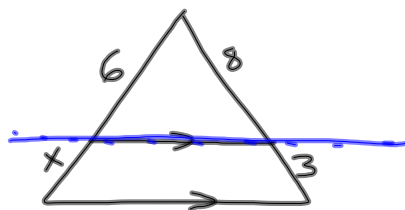
②  $\frac{3}{4} = \frac{n}{5}$

$$4n = 15$$
$$n = 3\frac{3}{4}$$

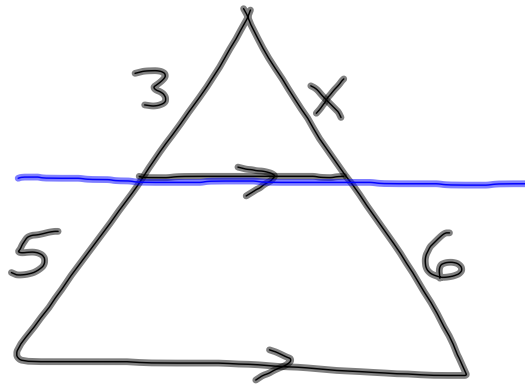
③  $\frac{n+1}{5} = \frac{n+3}{4}$

$$5(n+3) = 4(n+1)$$
$$5n+15 = 4n+4$$
$$\begin{array}{r} -4n \\ \hline n+15 = 4 \end{array}$$
$$\begin{array}{r} -15 \\ \hline n = -11 \end{array}$$

Side-Splitter Theorem



$$\frac{6}{x} = \frac{8}{3}$$
$$\frac{6}{8}x = \frac{8}{8}$$
$$x = 2\frac{2}{3}$$
$$x = 2\frac{1}{4}$$

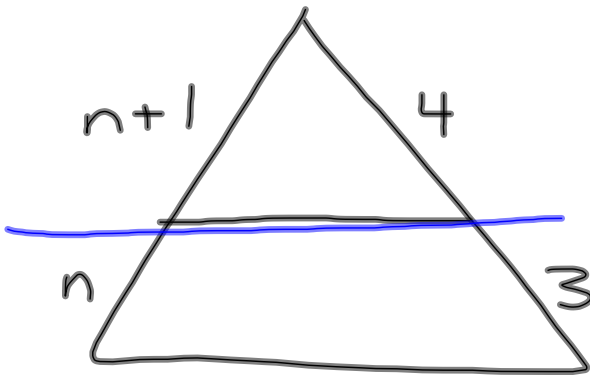


$$\frac{3}{5} = \frac{x}{6}$$

$$5x = 18$$

$$\frac{5x}{5} = \frac{18}{5}$$

$$x = 3\frac{3}{5}$$



$$\frac{n+1}{n} = \frac{4}{3}$$

$$4n = 3(n+1)$$

$$4n = 3n + 3$$

$$\begin{array}{r} 4n = 3n + 3 \\ -3n \quad -3n \\ \hline n = 3 \end{array}$$