Ratio & Proportion MrB4math.com

*(and equations that are **not** proportions)*

Ratio- comparison of two numbers: 15 out of 20 or $\frac{15}{20}$

Proportion- two ratios that are equal: $\frac{15}{20} = \frac{3}{4}$

Usually with proportions, one value is missing:

$\frac{x}{20} = \frac{3}{4}$ $\frac{15}{x} = \frac{3}{4}$ $\frac{15}{20} = \frac{x}{4}$ $\frac{15}{20} = \frac{3}{x}$

These are proportions as well:

$\frac{3x}{5} = \frac{7}{10}$ $\frac{3}{4} = \frac{6y}{2y-9}$ $\frac{r+5}{r} = \frac{2}{3}$

These are **not** proportions:

$\frac{3x}{5} = \frac{7}{10} + 2$ $1 + \frac{3}{4} = \frac{6y}{2y-9}$ $\frac{r+5}{r} = 4$

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1)

$$\frac{3x}{5} = \frac{7}{10}$$

2)

$$\frac{3}{4} = \frac{6y}{2y-9}$$

3)

$$\frac{3x}{5} = \frac{7}{10} + 2$$

4)

$$1 + \frac{3}{4} = \frac{6y}{2y-9}$$

*(and equations that are **not** proportions)*

5)

$$\frac{r+5}{r} = \frac{2}{3}$$

7)

$$\frac{r+5}{r} = 4$$

6)

$$\frac{5}{6x} = \frac{3}{4}$$

8)

$$\frac{5}{6y} = \frac{1}{y} - \frac{7}{8}$$

*(and equations that are **not** proportions)*

9)

$$\frac{x+2}{3x-1} - \frac{1}{3} = \frac{3}{4}$$

10)

$$\frac{3}{2k+7} = \frac{4}{5k}$$