04-06-25 Ratios

C&L Math Tutoring

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What is a ratio?

A **ratio** compares the size of one quantity to another. Here are some common ways of expressing ratios:

$$\frac{1}{3} \text{ (as a fraction)}$$

$$1 : 3 \text{ (separated by a colon)}$$

$$1 \text{ to } 3 \text{ (with words)}$$

Simplifying ratios

Ratios, like fractions, can be simplified. Treat the first number as the numerator and the second as the denominator.

Example: Simplify 10 : 36.

Solution: Simplify as if it were a fraction.

$$10 : 36 = (10 \div 2) : (36 \div 2) = \boxed{5 : 18}$$

Ratio tables

Ratio table for $1 : 5$

1	$1 \times 5 = 5$
2	$2 \times 5 = 10$
3	$3 \times 5 = 15$
4	$4 \times 5 = 20$
5	$5 \times 5 = 25$
6	$6 \times 5 = 30$
7	$7 \times 5 = 35$

$$1 : 5 = 2 : 10 = 3 : 15 = 4 : 20 = 5 : 25 = 6 : 30 = 7 : 35$$