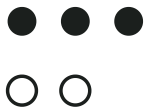
How Ratios Work

Comparing two amounts, equivalent ratios, and simplest form.

1. A ratio compares two amounts



There are 3 black dots and 2 white dots. The ratio of black to white is **3 to 2**. For every 3 black dots there are 2 white dots.

2. Three ways to write it

3 to 2	3 : 2	3/2

Order matters. Black to white is 3 : 2, but white to black is 2 : 3. A ratio can also compare a part to the whole: black to all dots is 3 : 5.

3. Equivalent ratios

black	3	6	9	12	15
white	2	4	6	8	10
		× 2	× 3	× 4	× 5

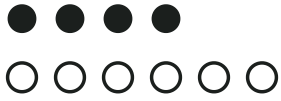
Multiply both numbers by the same amount and the ratio stays the same. **3 : 2, 6 : 4, 9 : 6** and **15 : 10** are all equivalent ratios.

4. Simplest form

12 : 18 = 2 : 3

Divide both numbers by the largest number that goes into each. Here that is 6: 12 ÷ 6 = 2 and 18 ÷ 6 = 3.

5. Try it



black to white: _____ in simplest form: _____

5 : 2 = 10 : _____ **20 : 8 = _____ : _____**

Answers: 4 : 6, 2 : 3, 4, 5 : 2