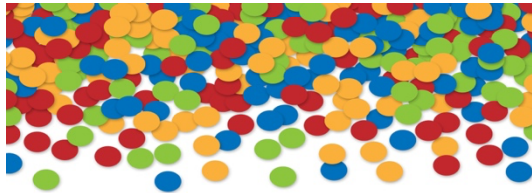# Equivalent Ratios - Multiplication

In this tutorial, I'll use multiplication to write equivalent ratios.

I'll begin by recalling what I understand about writing and reading ratios.
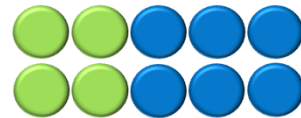
- How would I explain <u>writing</u> the ratio of green counters to blue counters?

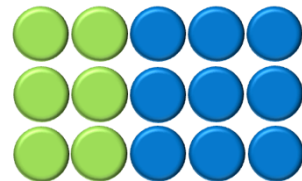- How would I <u>read</u> my ratio of green counters to blue counters?

I'll add more counters to the set.

- How would I <u>write</u> and <u>read</u> the ratio of green counters to blue counters in this set?
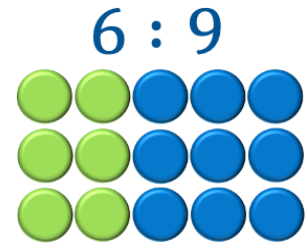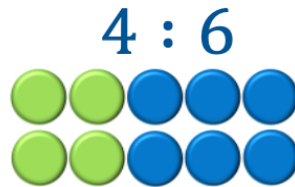
I'll increase the number of counters again to form another set.

- How would I <u>write</u> and <u>read</u> the ratio of green counters to blue counters in this set?

The ratios of green to blue counters are equivalent because they represent the same comparison.

2 : 3

4 : 6

6 : 9

- How would I explain this comparison?

I'll compare the first term (green counters) written in each ratio.

- How does the first term (green counters) change with each ratio?

- How would counting in multiples help me calculate the first term in my next equivalent ratio?

I'll compare the second term (blue counters) written in each ratio.

- How does the second term (blue counters) change with each ratio?

- How would I count in multiples to determine the second term in my next equivalent ratio?

- How would I compare counting in multiples to multiplication?

$$2:3 \qquad 4:6 \qquad 6:9 \qquad 8:12$$
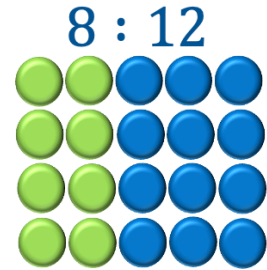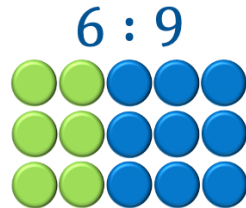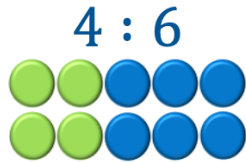
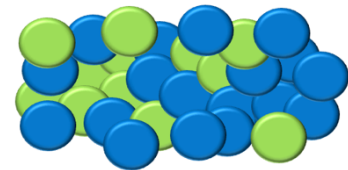Equivalent ratios can be formed by multiplying the terms of the ratio by the same number.

- How would I explain and demonstrate using multiplication to form these equivalent ratios?

$$2:3 = 10:15$$

If both ratios compare the number of green counters to the number of blue counters…

- How could I arrange the counters to illustrate why the two ratios are equivalent?

$$2:3 = 10:15$$

- How would I explain using multiplication to determine the missing term?

$$2 : 3 = 16 : \boxed{}$$

- How would I explain using multiplication to determine the missing terms?

$$2 : 3 : 5 = \boxed{} : 36 : \boxed{}$$

Which statements do I feel confident explaining and demonstrating?
Which statements do I <u>not</u> feel confident explaining and demonstrating?

✓ I can <u>explain</u> or <u>define</u> a ratio

✓ I can <u>explain</u> how I <u>write</u> a ratio

✓ I can <u>demonstrate</u> how I <u>read</u> a ratio

✓ I can <u>write</u> examples of equivalent ratios

✓ I can <u>explain</u> why two ratios are equivalent

✓ I can <u>count</u> in multiples of a number

✓ I can <u>demonstrate</u> and <u>explain</u> how I use multiplication to write equivalent ratios