

Ratios

6th Grade

Part to part, or part to whole — and why mixing them up changes the answer.

A ratio compares two quantities. It can compare one part with another part, or one part with the whole.

3 : 5 • 3 to 5 • 3/5

3 red, 5 blue

Comparing the two colours with each other.

part : part = 3 : 5

3 red out of 8

Comparing red with everything.

part : whole = 3 : 8

6 : 10

Divide both sides by the same number.

simplifies to 3 : 5

3 : 5 scaled up

Multiply both sides by the same number.

6 : 10, 9 : 15

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× 3 red and 5 blue means 3/5 are red

✓ 3/8 are red

3 : 5 is part to part. The whole is 8, so the fraction is 3/8.

A ratio is not a fraction unless it compares a part with the whole. Check which one the question means.