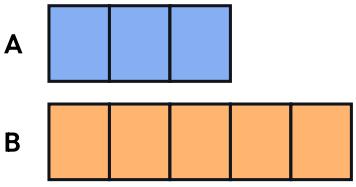
Name _____ Date _____

From Fraction to Ratio and Back

Comparison

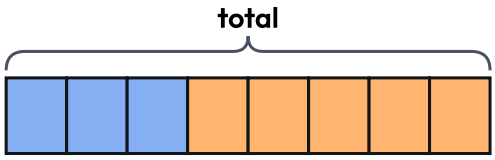
A is $\frac{3}{5}$ of B



A : B = 3 : 5

Part-whole

A is $\frac{3}{8}$ of the total



A : B = 3 : 5

Remember

If A : B = a : b, then A is $\frac{a}{b}$ of B, B is $\frac{b}{a}$ of A, and A is $\frac{a}{a+b}$ of the total. Watch out: are we asking **of B** or **of the total**?

1 ON YOUR OWN From ratio to fractions. Build each row with counters first.

Build it first



For A : B = 2 : 3 put out 2 blue and 3 orange counters. Compare blue with orange: A is $\frac{2}{3}$ of B. Compare orange with blue: B is $\frac{3}{2}$ of A. Then push all the counters into one pile: that is 5 in total, so A is $\frac{2}{5}$ of the total.

A : B	A is … of B	B is … of A	A is … of the total	B is … of the total
2 : 3	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$
1 : 4	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$
5 : 2	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$
3 : 7	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$	$\frac{\square}{\square}$

Names (pair) _____ Date _____

2 ON YOUR OWN From fraction to ratio. Build it with counters first.

Build it first



For "A is $\frac{3}{8}$ of the total", count out 8 counters and turn 3 of them blue. The rest are B: A : B = 3 : 5.

A is $\frac{3}{8}$ of the total

⇒ A : B = ☐ : ☐

B is $\frac{5}{9}$ of the total

⇒ A : B = ☐ : ☐

A is $\frac{4}{3}$ of B ⇒ A : B = ☐ : ☐

B is $\frac{2}{7}$ of A ⇒ A : B = ☐ : ☐

A is $\frac{1}{6}$ of the total

⇒ A : B = ☐ : ☐

B is $\frac{3}{5}$ of A ⇒ A : B = ☐ : ☐

3 IN PAIRS **Model and calculation.** Build it with counters first, then one student draws the model and the other writes the calculation. Swap roles for each problem.

Build it first



One counter is one unit of the model. In problem a) put down 2 counters for Ana and 3 for Iva, then share 30 coins (or counters of another colour) equally onto those 5 counters. How many are on each? Only then draw the model.

a) Ana has $\frac{2}{3}$ as much money as Iva. Together they have 30 euros. How many euros does each have?

Answer: _____

b) $\frac{3}{7}$ of the pupils in a class are boys. There are 8 more girls than boys. How many pupils are in the class?

Answer: _____

Names (pair) _____ Date _____

c) The blue stick is $\frac{5}{4}$ of the red one. The red stick is 36 cm long. How long is the blue one? What is the ratio red : blue?

Answer: _____

d) The ratio of apples to pears in a basket is 5 : 3. There are 10 more apples. How many pears are there? What fraction of the fruit is pears?

Answer: _____

★ ON YOUR OWN **Exit card.** A : B = 5 : 2 A is $\frac{\square}{\square}$ of B, B is $\frac{\square}{\square}$ of the total