Equivalent Ratios

Make and check equivalent ratios by multiplying or dividing both numbers by the same amount.

Name _____ **Date** _____

Tonight's spark

Chef Montoya's soup serves 8 people. Her recipe uses 3 cups of tomatoes to 2 cups of broth. Today she must serve 32 people. How many cups of tomatoes does she need?

Make a guess first: more than 10 cups of tomatoes, or fewer?

Tomatoes (cups)	Broth (cups)
3	2
?	8

×4

Our class model: the scale factor on a ratio table

Try it

Work it out on paper. Write one answer on each line.

1 **Which ratio is equivalent to 2:5?**

A. 4:7 **B.** 2:10 **C.** 4:10 **D.** 6:10

My answer _____

2 **Divide both numbers of 20:30 by 10. What is the ratio?**

A. 10:20 **B.** 2:3 **C.** 3:2 **D.** 2:30

My answer _____

3 **What is the missing number? 4:5 = 12:?**

A. 13 **B.** 20 **C.** 15 **D.** 60

My answer _____

4 **Punch uses 2 cups of juice for every 5 cups of soda. Which mix tastes the same?**

A. 4 cups juice, 7 cups soda **B.** 4 cups juice, 10 cups soda **C.** 2 cups juice, 10 cups soda
D. 5 cups juice, 8 cups soda

My answer _____

5 **Is 6:15 equivalent to 2:5?**

A. No, 6 and 15 are bigger numbers **B.** No, 2:5 has smaller numbers
C. Yes, divide both 6 and 15 by 3 **D.** Yes, add 4 to both numbers

My answer _____

6 **A tape diagram has 3 blue parts and 4 yellow parts, and each part is 5 tiles. What is the ratio of blue tiles to yellow tiles?**

A. 8:9 **B.** 15:20 **C.** 3:20 **D.** 15:4

My answer _____

Talk about it

How do you know 1:4 and your new ratio say the same thing?

Home mission

Pretend to make the soup at the table: 3 spoons of tomato to 2 spoons of broth. Ask your student: what would 4 times as much soup need? What if we only added 2 spoons to each? Does it taste the same?

If we get stuck, ask

- What is the scale factor? Let's divide the big number by the small one.
- Did we do the SAME operation to both numbers?
- Can we simplify to check — do both ratios reduce to the same thing?

Do it on a screen
Scan or type the link. Same lesson, with hints.
eduwonderlab.com/lessons/3-9/homework.html

How did it feel? (optional)
Tricky Getting there Got it