

Grade 6 · Ratios and Ratio Language · Worksheet

Common Core 6.RP.A.1, 6.RP.A.3a · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

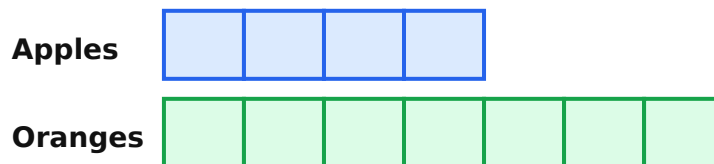
These 20 problems practice ratio language and equivalent ratios from standards 6.RP.A.1 and 6.RP.A.3a. The early problems ask for ratios written in three forms, part-to-whole comparisons, simplest form, ratio tables, and graphs of equivalent ratios.

Later problems compare mixtures, then move to multi-step word problems about trail mix, a school store, paint, a car wash, a band, and a farmers market. Show every step.

Grade 6 Common Core: 6.RP.A.1 · 6.RP.A.3a

Problem 1: Writing a ratio

A bowl holds 4 apples and 7 oranges. Write the ratio of apples to oranges in three ways.



4 apples and 7 oranges.

Problem 2: Socks in a drawer

A drawer holds 5 black socks and 9 white socks. Write each ratio in the form $a:b$.

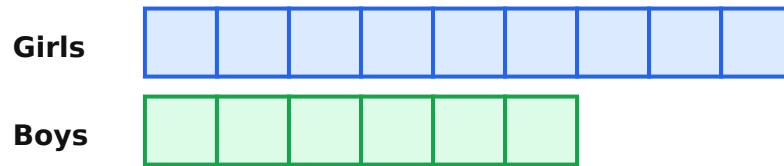
- a. black socks to white socks
- b. white socks to black socks
- c. black socks to all the socks



5 black socks and 9 white socks.

Problem 3: Part-to-whole ratio

A soccer team has 9 girls and 6 boys. Write the ratio of girls to all players on the team.



9 girls and 6 boys on the team.

Problem 4: Equivalent ratios

Write three ratios equivalent to 2:5.

Problem 5: Equivalent or not

Tell whether the two ratios are equivalent. Explain each answer.

- a. 4:6 and 10:15
- b. 6:8 and 9:13
- c. 5:2 and 20:8

Problem 6: Missing value

Find the missing number: $3:4 = 12: ?$

Problem 7: Missing numbers

Find the missing number in each pair of equivalent ratios.

- a. $5:8 = ? : 40$
- b. $7:3 = 28: ?$
- c. $12:18 = 4: ?$

Problem 8: Simplest form

Write 18:24 in simplest form.

Problem 9: Simplest forms

Write each ratio in simplest form.

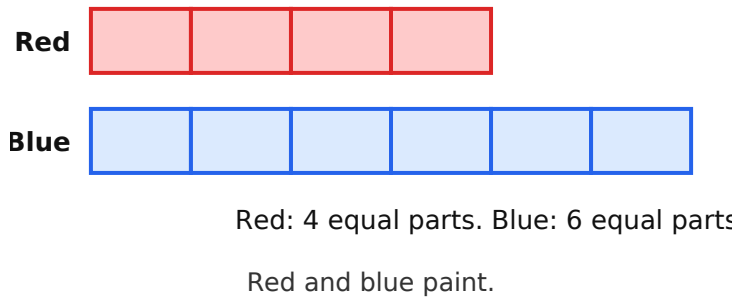
- a. 20:35

- b. 48:36
- c. 15:45

Problem 10: Ratio from a tape diagram

The tape diagram shows red paint and blue paint. Each part is the same size. Write each ratio in simplest form.

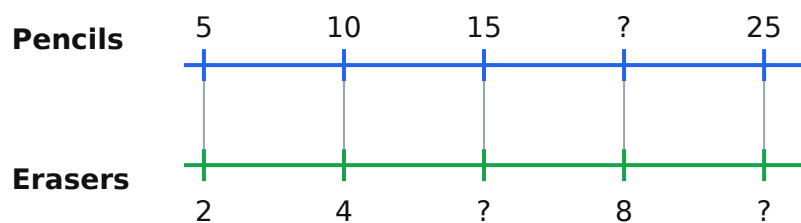
- a. red to blue
- b. red to all the paint
- c. blue to red



Problem 11: Ratio table

A school store sells 5 pencils for every 2 erasers. Complete the ratio table.

Pencils	5	10	15	?	25
Erasers	2	4	?	8	?



The same ratio on a double number line.

Problem 12: Smoothie table

A smoothie uses 4 strawberries for every 3 bananas. Complete the ratio table.

Strawberries	4	8	?	16	28
Bananas	3	?	9	?	?

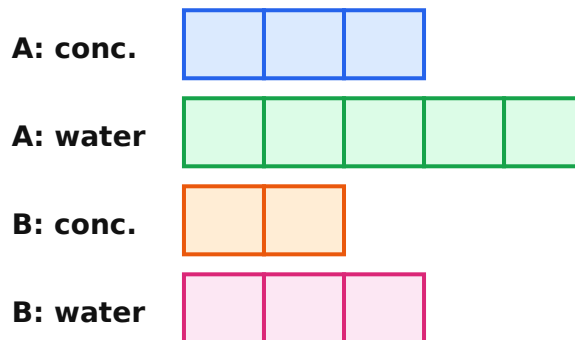
Problem 13: Plot equivalent ratios

A pancake batter uses 2 cups of flour for every 3 cups of milk.

- Find the cups of milk needed for 2, 4, 6, and 8 cups of flour.
- Write the pairs as ordered pairs (flour, milk) and plot them on a coordinate plane.
- Describe what the plotted points show.

Problem 14: Comparing ratios

Mix A uses 3 cups of concentrate and 5 cups of water. Mix B uses 2 cups of concentrate and 3 cups of water. Compare the two mixes by finding how much concentrate each uses with 15 cups of water. Which mix is stronger?



Mix A and Mix B drawn to the same unit size.

Problem 15: Trail mix

Maya makes trail mix with peanuts and raisins in the ratio 3:2. The mix weighs 45 ounces in all.

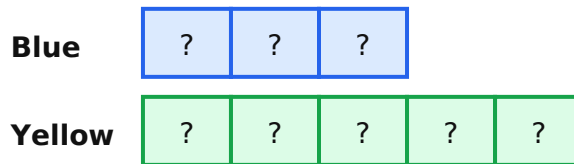
- How many ounces of peanuts and how many ounces of raisins are in the mix?
- Maya adds 6 more ounces of raisins. Write the new ratio of peanuts to raisins in simplest form.

Problem 16: School store word problem

At the school store, pencils and notebooks are sold in the ratio 7:3. The store sold 63 pencils. How many notebooks did it sell, and how many items is that in all?

Problem 17: Mixing paint

Diego mixes blue paint and yellow paint in the ratio 3:5 to make green. He needs 40 cups of green paint in all. How many cups of each color does he use?

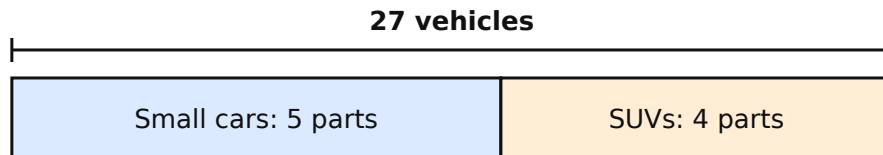


Blue and yellow paint make 8 equal parts that total 40 cups.

Problem 18: Car wash

At a school car wash, small cars and SUVs are washed in the ratio 5:4. The students wash 27 vehicles in all.

- How many small cars and how many SUVs do they wash?
- Then 9 more SUVs arrive and are washed. Write the new ratio of small cars to SUVs in simplest form.

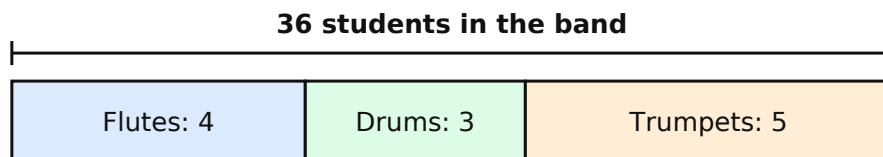


Each part is the same size
Small cars and SUVs.

Problem 19: School band

The sixth-grade band has flutes, drums, and trumpets in the ratio 4:3:5. There are 36 students in the band.

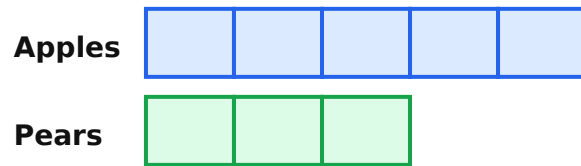
- How many students play each instrument?
- Write the ratio of trumpet players to all band students in simplest form.



Ratio of flutes to drums to trumpets is 4:3:5
The band's instruments.

Problem 20: Farmers market

Priya sells apples and pears in the ratio 5:3. She starts with 96 pieces of fruit. (a) How many apples and how many pears does she have? (b) After she sells 12 apples, write the new ratio of apples to pears in simplest form.



96 pieces in all
Apples and pears in the ratio 5 to 3.