

Ratio Language and Equivalent Ratios

Grade 6 math · Test · Standards: 6.RP.A.1, 6.RP.A.3a

Name: _____ Date: _____ Class: _____

This test has 9 questions worth 20 points in total and fits a 45-minute period. Show all work, label every number, and write ratios in the order the question names the quantities.

Standards: 6.RP.A.1, 6.RP.A.3a · **Level:** Grade 6

Time: 45 minutes · 9 questions · Total: 20 points · Calculator: as allowed by your teacher

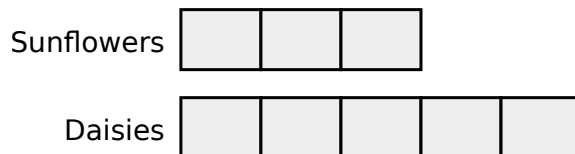
Question 1 Ratio Language (2 points)

On Saturday a roadside stand sells 17 plums and 12 pears.

- Write the ratio of plums to pears using a colon. (1 point)
- Write the ratio of pears to all the fruit as a fraction. (1 point)

Question 2 Reading a Tape Diagram (2 points)

A tape diagram shows the flowers in a window box. Each block is one flower.



Window box flowers.

- Write the ratio of sunflowers to daisies. (1 point)
- Write the ratio of daisies to all flowers. (1 point)

Question 3 Equivalent Ratios (2 points)

- Write a ratio equivalent to 5 : 12 whose first term is 35. (1 point)
- Write 42 : 63 in simplest form. (1 point)

Question 4 Missing Terms (2 points)

- Find the missing number: $9 : 4 = 54 : ?$ (1 point)

b. Find the missing number: $6 : 5 = ? : 35$ (1 point)

Question 5 Ratio Table (2 points)

A granola recipe uses flour and honey in a constant ratio. Copy and complete the ratio table.

Flour (cups)	4	12		52
Honey (tbsp)	7		35	

Three values are missing.

Question 6 Equivalent or Not? (2 points)

Decide whether each pair of ratios is equivalent and justify your answer.

- a. $8 : 20$ and $14 : 35$ (1 point)
- b. $15 : 9$ and $20 : 14$ (1 point)

Question 7 Hiking Supplies (3 points)

A hiking club packs 4 granola bars for every 3 water bottles.

- a. How many water bottles go with 28 granola bars? (1 point)
- b. How many granola bars go with 33 water bottles? (1 point)
- c. The club packs 105 items in all. How many are granola bars? (1 point)

Question 8 Comparing Smoothies (3 points)

Blend X uses 3 cups of orange juice for every 4 cups of mango juice. Blend Y uses 5 cups of orange juice for every 7 cups of mango juice. Which blend has the stronger orange flavor? Justify with equivalent ratios.

Question 9 Animal Shelter (2 points)

The ratio of cats to dogs at an animal shelter is $7 : 4$, and there are 33 animals in all. How many cats are there?