

Grade 4 · Multiplicative Comparison and Multi-Step Problems · Test

Common Core 4.OA.A.1, 4.OA.A.2, 4.OA.A.3 · mathovore.fr

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

This test has 9 questions worth 20 points. It covers times-as-many comparisons, equations with a letter for the unknown, and multi-step word problems with whole numbers. Work for 45 minutes and show each equation and step.

Test information

- **Grade:** Grade 4
- **Chapter:** Multiplicative Comparison and Multi-Step Problems
- **Common Core:** 4.OA.A.1, 4.OA.A.2, 4.OA.A.3
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 2 pts; Question 4: 2 pts; Question 5: 2 pts; Question 6: 3 pts; Question 7: 3 pts; Question 8: 3 pts; Question 9: 1 pt)

Question 1: Write the comparison (2 points)

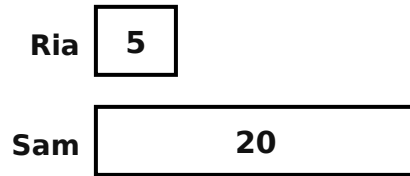
- Write $54 = 6 \times 9$ as a sentence that says how many times as many. (1 point)
- Write a multiplication equation for "45 is 5 times as many as 9." (1 point)

Question 2: Times as many (2 points)

- Find 8 times as many as 7. (1 point)
- The number 63 is 7 times as many as n . Find n . (1 point)

Question 3: More or times (2 points)

Sam has 20 cards and Ria has 5 cards.



Bars drawn to scale.

- How many more cards does Sam have than Ria? (1 point)
- How many times as many cards does Sam have as Ria? (1 point)

Question 4: Garden plants (2 points)

Aisha has 15 tomato plants. Liam has 5 times as many tomato plants as Aisha.

- How many tomato plants does Liam have? (1 point)
- Explain how 5 times as many is different from 5 more. (1 point)

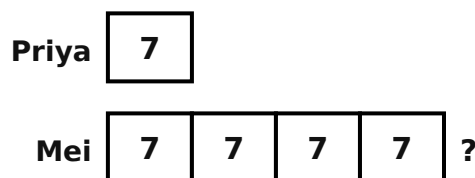
Question 5: Library books (2 points)

A library has 84 picture books. This is 7 times as many as the number of poetry books, $\mathcal{P}$.

- Write an equation with $\mathcal{P}$. (1 point)
- Find the number of poetry books. (1 point)

Question 6: Bracelets (3 points)

Priya has 7 bracelets. Mei has 4 times as many bracelets as Priya. Aisha has 6 fewer bracelets than Mei.



Priya and Mei.

- How many bracelets does Mei have? (1 point)
- How many bracelets does Aisha have? (1 point)
- How many bracelets do the three girls have together? (1 point)

Question 7: Concert tickets (3 points)

At a school concert, a child ticket costs \$8. An adult ticket costs 3 times as much as a child ticket. A family buys 2 adult tickets and 3 child tickets.

Child	\$8			
Adult	\$8	\$8	\$8	?

One adult ticket costs 3 times as much as one child ticket.

- Find the cost of one adult ticket. (1 point)
- Write an equation with the letter t for the total cost of the tickets. (1 point)
- Find t . (1 point)

Question 8: Can collection (3 points)

Ethan collected 47 cans on Monday. On Tuesday he collected 3 times as many cans as on Monday. On Wednesday he collected 25 fewer cans than on Tuesday.

- How many cans did Ethan collect on Tuesday? (1 point)
- How many cans did Ethan collect on Wednesday? (1 point)
- Round 47 to the nearest ten to estimate the Tuesday total. Is your answer to part (a) reasonable? (1 point)

Question 9: Add or multiply (1 point)

Write *adding* or *multiplying* for each comparison. Both answers must be correct for the point.

- The oak is 12 feet taller than the maple.
- The oak is 3 times as tall as the maple.