

Grade 4 · Multiplicative Comparison and Multi-Step Problems · Worksheet Answer Key

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

Each worked solution names the operation, shows the equation with its letter, and states the final answer in bold. Check your own work against every step, and notice whether a mistake came from choosing the wrong operation or from a calculation.

Grade 4 Common Core: 4.OA.A.1 · 4.OA.A.2 · 4.OA.A.3

Problem 1: Read the equation

Four groups of 6 make 24, so 24 is **4** times as many as 6. It is also 6 times as many as 4.

Problem 2: Two sentences

Because $5 \times 7 = 35$, the equation gives two sentences.

35 is 5 times as many as 7. 35 is 7 times as many as 5.

Problem 3: Write the equation

(a) $18 = 3 \times 6$, which is true because $3 \times 6 = 18$. (b) $42 = 6 \times 7$, which is true because $6 \times 7 = 42$.

Problem 4: Five times as many

$5 \times 7 = 35$.

Answer: **35**

Problem 5: Pencils

The larger amount is unknown, so multiply: $4 \times 6 = 24$.

Answer: **24 pencils**

Problem 6: Tall tree

$5 \times 9 = 45$.

Answer: **45 feet**

Problem 7: Find the unknown

The equation is $6 \times n = 48$. Divide: $n = 48 \div 6 = 8$. Check: $6 \times 8 = 48$.

Answer: $n = 8$

Problem 8: How many times

$36 \div 9 = 4$, because $4 \times 9 = 36$.

Answer: **4 times as long**

Problem 9: More than or times

(a) "More than" means add: $5 + 7 = 12$. (b) "Times as many" means multiply: $7 \times 5 = 35$.

Answer: **(a) 12; (b) 35**

Problem 10: Add or multiply

(a) "Longer than" compares by adding. (b) "Times as long" compares by multiplying. (c) "Shorter than" compares by subtracting, which is additive.

Answer: **(a) adding; (b) multiplying; (c) adding (subtracting)**

Problem 11: Pages read

$3 \times 12 = 36$.

Answer: **36 pages**

Problem 12: Stickers and a letter

$7 \times s = 56$. Divide: $s = 56 \div 7 = 8$. Check: $7 \times 8 = 56$.

Answer: **8 stickers**

Problem 13: Bus and van

$40 \div 8 = 5$, because $5 \times 8 = 40$.

Answer: **5 times as long**

Problem 14: Pencils sold

$8 \times p = 72$. Divide: $p = 72 \div 8 = 9$. Check: $8 \times 9 = 72$.

Answer: **9 pencils**

Problem 15: More and times

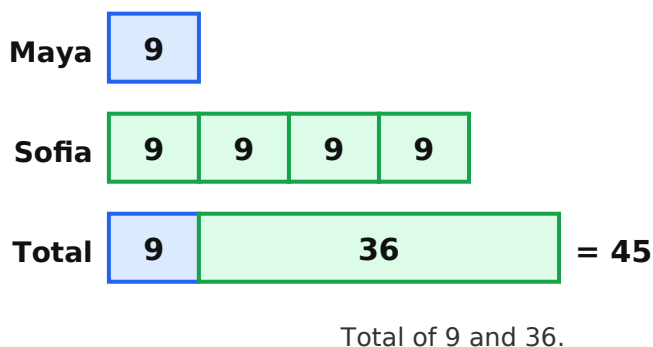
(a) Compare by adding: $24 - 8 = 16$. (b) Compare by multiplying: $24 \div 8 = 3$, because $3 \times 8 = 24$.

Answer: **(a) 16 more; (b) 3 times as many**

Problem 16: Two amounts together

Step 1: $4 \times 9 = 36$ stickers for Sofia.

Step 2: $9 + 36 = 45$.



Answer: **45 stickers**

Problem 17: Estimate and solve

Estimate: $60 \times 5 = 300$. Exact: $5 \times 62 = 310$. The exact answer is close to the estimate, so it is reasonable.

Answer: **about 300; exactly 310 beads**

Problem 18: Savings by month

February: $f = 3 \times 15 = 45$. March: $m = 45 - 8 = 37$.

Jan \$15

Feb \$15 \$15 \$15 = \$45

Mar m = 45 - 8

March is \$8 less than February.

Answer: **\$37**

Problem 19: Concert tickets

VIP ticket: $4 \times 9 = 36$ dollars. Two child tickets: $2 \times 9 = 18$ dollars. Total: $36 + 18 = 54$.

Answer: **\$54**

Problem 20: Marbles gift

Before the gift: $m = 5 \times 6 = 30$. After the gift: $30 - 8 = 22$.

Answer: **22 marbles**

Problem 21: Runs scored

Lions: $3 \times 7 = 21$. Eagles: $21 - 4 = 17$. All three: $7 + 21 + 17 = 45$.

Tigers 7

Lions 7 7 7 = 21

Eagles e = 21 - 4

Compare the three teams.

Answer: **45 runs**

Problem 22: Is it reasonable

Round 38 to 40. Then $40 \times 7 = 280$, so the answer should be near 280. Noah's 366 is much too large. Exact: $7 \times 38 = 266$.

Answer: **266 chicks**

Problem 23: Fruit stand

Oranges: $o = 4 \times 25 = 100$. Pears: $p = 100 - 15 = 85$. Total: $25 + 100 + 85 = 210$.

Answer: **210 pieces of fruit**

Problem 24: Beads and bags

Sofia's beads: $9 \times s = 72$, so $s = 72 \div 9 = 8$. New beads: $5 \times 8 = 40$. Total: $8 + 40 = 48$.

Answer: **48 beads**