

Grade 3 · Two-Step Word Problems and Patterns · Worksheet

Common Core 3.OA.D.8, 3.OA.D.9 · mathovore.fr

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

These 24 problems practice two-step word problems with the four operations, estimation, and arithmetic patterns for standards 3.OA.D.8 and 3.OA.D.9. You will use a letter for the unknown number.

The problems get harder as you go. The last ones need two or three steps and a tape diagram.

Grade 3 Common Core: 3.OA.D.8 · 3.OA.D.9

Problem 1: Find the unknown sum

Find the value of n .

$$24 + n = 61$$

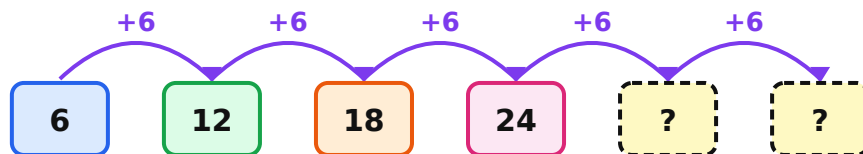
Problem 2: Find the unknown factor

Find the value of b .

$$7 \times b = 56$$

Problem 3: Add a rule

The rule is add 6. Find the two missing numbers.



Each arrow adds 6.

Problem 4: Estimate a sum

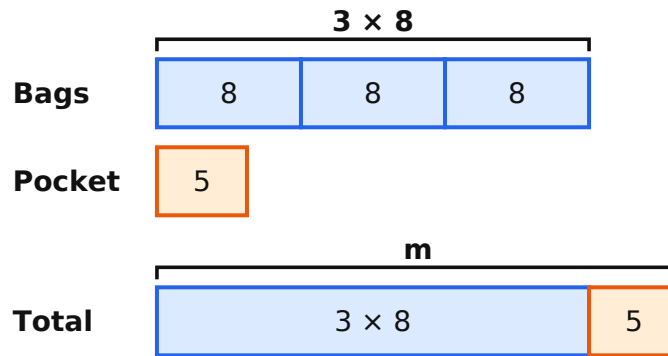
Estimate $64 + 27$ by rounding each number to the nearest 10. Then find the exact sum.

Problem 5: Estimate a difference

Estimate $481 - 196$ by rounding each number to the nearest 100. Then find the exact difference.

Problem 6: Write a two-step equation

Ava has 3 bags with 8 marbles in each bag and 5 more marbles in her pocket. Write an equation with m for the total number of marbles. Then solve it.



The total m has two parts.

Problem 7: Even or odd product

Without multiplying, decide whether 6×7 is even or odd. Explain your thinking.

Problem 8: Fill in the pattern

Find the missing numbers and write the rule.

14, 21, 28, __, 42, __

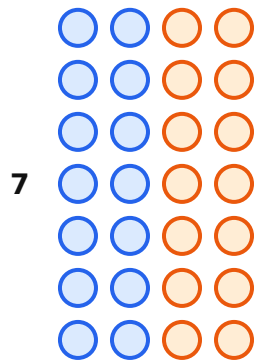
Problem 9: Count down by a rule

Find the missing numbers and write the rule.

90, 81, 72, __, 54, __

Problem 10: Doubling in the table

The array shows 7 rows with 4 dots each. In the 2s row of the table, $2 \times 7 = 14$. Use doubling to find 4×7 .



rows: 2 blue + 2 orange

Each row has 2 blue dots and 2 orange dots.

Problem 11: Pattern in the 5s

Write the first eight multiples of 5. What pattern do you see in the ones digits?

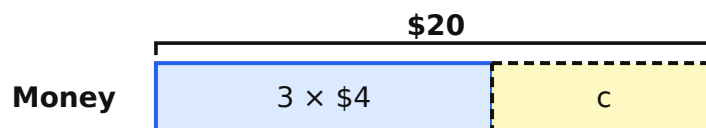
Problem 12: Order of operations

Find the value of each expression.

- a. $4 + 3 \times 5$
- b. $(4 + 3) \times 5$

Problem 13: Change from a \$20 bill

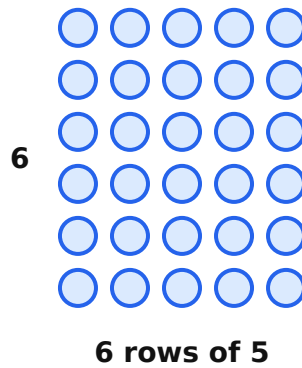
Mei buys 3 notebooks that cost \$4 each. She pays with a \$20 bill. Write an equation with c for her change. Then solve it.



The \$20 is split into the cost and the change.

Problem 14: Rows of chairs

Noah sets up 6 rows of 5 chairs for a school concert. Then he adds 7 more chairs. Write an equation with c for the total number of chairs and solve it.



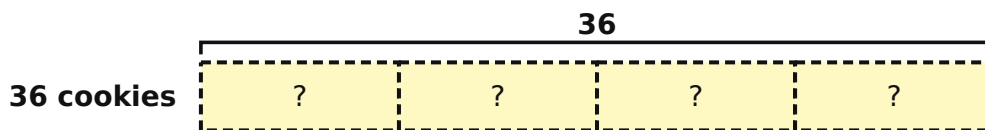
The first 6 rows have 5 chairs each.

Problem 15: Crayons given away

A teacher has 5 boxes with 8 crayons in each box. She gives 13 crayons to students. How many crayons r are left? Write an equation and solve it.

Problem 16: Cookies on plates

Liam puts 36 cookies equally on 4 plates. Then he adds 3 more cookies to each plate. How many cookies p are on each plate? Write an equation and solve it.



36 cookies are split into 4 equal parts.

Problem 17: Beads shared equally

Sofia has 18 red beads and 14 blue beads. She shares all the beads equally among 4 friends. How many beads b does each friend get? Write an equation and solve it.

Problem 18: Estimate, then solve

Aisha sold 48 jars of jam on Saturday and 37 jars on Sunday at the farmers market. Estimate the total by rounding to the nearest 10. Then find the exact total and explain why it is reasonable.

Problem 19: Pages left

Diego's book has 70 pages. He reads 25 pages on Monday and 18 pages on Tuesday. How many pages p are left? Write an equation and solve it.

Problem 20: Road trip miles

On a road trip, the Patel family needs to drive 100 miles. They drive 45 miles before lunch and 38 miles after lunch. How many miles m are left? Write an equation and solve it.

Problem 21: Little League players

A Little League has 6 teams with 8 players on each team. Then 14 players move to another league. How many players p are left? Write an equation and solve it.

Problem 22: Pumpkins and a basket

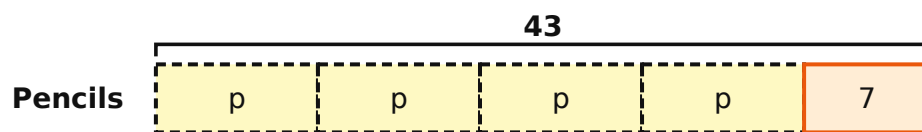
At the farmers market, Maya buys 3 pumpkins that cost \$5 each and a basket that costs \$4. She pays with a \$20 bill. How much change c does she get? Write an equation and solve it.

Problem 23: Find the mistake

Sam finds the value of $5+4\times 2$ and gets 18. What mistake did he make? What is the correct value?

Problem 24: Boxes of pencils

Priya packs 4 boxes with the same number of pencils in each box. She also has 7 loose pencils. She has 43 pencils in all. Write an equation with p for the number of pencils in each box and solve it.



4 equal boxes plus 7 loose pencils make 43.