

Grade 3 - Two-Step Word Problems and Patterns - Test Answer Key

Common Core 3.OA.D.8, 3.OA.D.9 · maths-pdf.fr/en/

This **two step problems test answers** for 3rd Grade covers two-step word problems and patterns (Common Core 3.OA.D.8, 3.OA.D.9), with a free PDF to print.

Scoring guide for the two-step problems test. Award points as shown in each item. Give credit for any correct method, and accept a letter other than the one used in the answer key. A correct answer with no work earns half the points.

Grade 3 · Common Core State Standards: **3.OA.D.8, 3.OA.D.9**

Two step problems test answers: worked solutions

Question 1 - Tape diagram equation [2 pts]

46					
8	8	8	8	8	6

$$40 + 6 = 46.$$

- a. $5 \times 8 + 6 = n$.
b. $5 \times 8 = 40$ and $40 + 6 = 46$, so **n = 46**.

Scoring: 1 point for a correct equation. 1 point for $n = 46$.

Question 2 - Juice boxes [2 pts]

$$6 \times 4 = 24 \text{ and } 24 - 9 = 15. \mathbf{j = 15}.$$

Scoring: 1 point for 24. 1 point for 15.

Question 3 - Library books [2 pts]

$$245 + 130 = 375 \text{ and } 375 - 85 = 290. \mathbf{b = 290}.$$

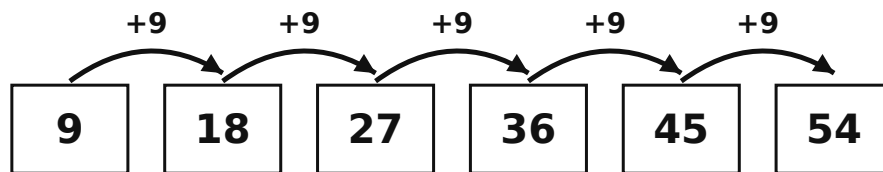
Scoring: 1 point for 375. 1 point for 290.

Question 4 - Estimation [2 pts]

- a. $60+30+20=110$.
- b. 53 rounds to 50, and $4\times 50=200$. 312 is much larger than 200, so it is not reasonable. (The exact product is 212.)

Scoring: 1 point for 110. 1 point for a correct estimate and a clear explanation.

Question 5 - Number pattern [2 pts]



The completed pattern.

- a. Rule: **add 9**.
- b. **45 and 54**.

Scoring: 1 point for the rule. 1 point for both numbers.

Question 6 - Chart and parity [2 pts]

- a. **33 and 36**, because each shaded number is 3 more than the last.
- b. $9+7=16$, which is **even**. The sum of two odd numbers is even.

Scoring: 1 point for 33 and 36. 1 point for even with a reason.

Question 7 - Unknown subtracted [3 pts]

- a. $7\times 6-g=30$.
- b. $7\times 6=42$. Then $42-g=30$, so $g=42-30=12$. **She gives away 12 stickers.**

Scoring: 1 point for the equation. 1 point for 42. 1 point for $g=12$.

Question 8 - Reading pages [3 pts]

120		
28	35	57

The unknown part is 57.

$28 + 35 = 63$ pages read.

$120 - 63 = 57$. Equation: $120 - 28 - 35 = p$. **$p = 57$ pages.**

Scoring: 1 point for 63. 1 point for the equation. 1 point for 57.

Question 9 - Cones at practice [2 pts]

$45 \div 5 = 9$ and $9 + 4 = 13$. **$c = 13$.**

Scoring: 1 point for 9. 1 point for 13.

Total score

Total

20 points

Key facts behind this two step problems test answers

Key facts

- A two-step problem has a hidden question that is solved first.
- A letter such as m stands for the unknown number in an equation.
- Rounding to the nearest 10 gives a quick estimate to check an answer.
- An arithmetic pattern follows a rule such as add 7 each time.
- Odd + odd = even, even + even = even, even + odd = odd.

How to use this two step problems test answers

Score your test with the point values shown for each question. Then read the worked solution of every question where you lost points and note the method to review.