

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

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

Use this key to score the test out of 20 points. Each answer shows the equation and every step. The scoring note explains how to award partial credit when a student has the right idea.

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

Question 1: Find the unknown (2 points)

a. $n = 75 - 38 = 37$. $n = 37$

b. $k = 63 \div 9 = 7$. $k = 7$

Scoring: 1 point for each correct value.

Question 2: Marbles in bags (3 points)

a. $m = 5 \times 6 + 4$

b. $5 \times 6 = 30$, then $30 + 4 = 34$. $m = 34$

c. $34 - 9 = 25$. Priya has **25 marbles**.

	34	
Marbles		
	$5 \times 6 = 30$	4

The total is 34 marbles.

Scoring: 1 point for a correct equation. 1 point for 34. 1 point for 25.

Question 3: Estimate by rounding (2 points)

a. 473 rounds to 500 and 286 rounds to 300. $500 + 300 = 800$. The estimate is **800**.

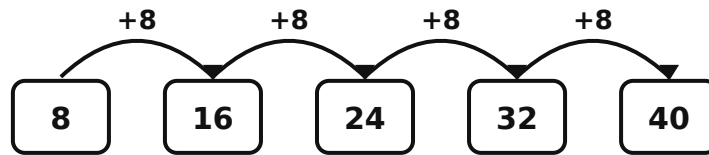
b. $473 + 286 = 759$. It is reasonable because 759 is close to 800.

Scoring: 1 point for 800. 1 point for 759 and a correct reason.

Question 4: Complete the pattern (2 points)

a. $24 + 8 = 32$ and $32 + 8 = 40$. The missing numbers are **32 and 40**.

b. The rule is **add 8**.



The rule is add 8.

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

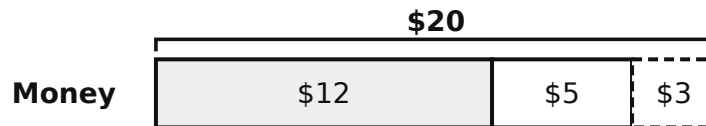
Question 5: Multiplication table pattern (2 points)

- $3 \times 5 = 15$ and $6 \times 4 = 24$. The missing products are **15 and 24**.
- Each number in the 6s row is double the number above it. This happens because $6 = 3 + 3$, so $6 \times c = 3 \times c + 3 \times c$.

Scoring: 1 point for both products. 1 point for double with a reason.

Question 6: Change at the store (2 points)

- $c = 20 - (4 \times 3 + 5)$
- $4 \times 3 = 12$, $12 + 5 = 17$, $20 - 17 = 3$. Ethan gets **\$3** in change.



The change is \$3.

Scoring: 1 point for a correct equation. 1 point for \$3.

Question 7: Sharing stickers (3 points)

- $s = (24 + 18) \div 6$
- $24 + 18 = 42$, then $42 \div 6 = 7$. $s = 7$
- $7 - 3 = 4$. Each friend has **4 stickers**.

Scoring: 1 point for a correct equation (parentheses needed). 1 point for 7. 1 point for 4.

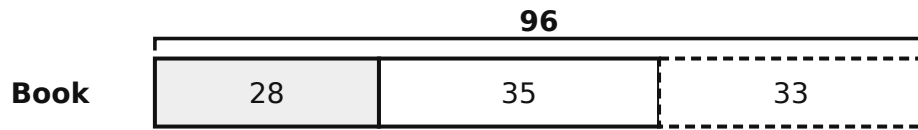
Question 8: Order of operations (2 points)

- $2 \times 6 = 12$, then $7 + 12 = 19$. The value is **19**.
- $7 + 2 = 9$, then $9 \times 6 = 54$. The value is **54**.

Scoring: 1 point for each correct value.

Question 9: Pages left (2 points)

- a. $p = 96 - (28 + 35)$
b. $28 + 35 = 63$, then $96 - 63 = 33$. **33 pages** are left.



Check: $28 + 35 + 33 = 96$.

Scoring: 1 point for a correct equation. 1 point for 33.

Total
20 points