



TIMO practice: A new operation (with solutions)

4 problems · Grade 3 · answers and solutions at the end

Name _____

Date _____



Practise this type in the Karotto app, with questions read aloud and hints when stuck. Scan the code or visit playkarotto.com

Grade 3

- 1 There is a new operation called the star. The first line shows how it works. Work out the second line.

$$a \star b = (a + b) \times 2$$

$$(2 \star 12) \star 3 = \boxed{}$$

Answer: _____

- 2 There is a new operation called the star. The first line shows how it works. Work out the second line.

$$a \star b = a \times 2 + b$$

$$(6 \star 8) \star 5 = \boxed{}$$

Answer: _____

- 3 There is a new operation called the star. The first line shows how it works. Work out the second line.

$$a \star b = a \times 2 + b$$

$$2 \star 3 = \boxed{}$$

Answer: _____

- 4 There is a new operation called the star. The first line shows how it works. Work out the second line.

$$a \star b = a \times 2 + b$$

$$5 \star 3 = \boxed{}$$

Answer: _____

Answers and solutions: A new operation

1. Answer: 62 · Grade 3

How to think: The first line is the rule: a is the number before the star, and b is the number after it.

Solution: Brackets first, with 2 for a and 12 for b: $(2 + 12)$ times 2 equals 28. Then 28 for a and 3 for b: $(28 + 3)$ times 2 equals 62.

2. Answer: 45 · Grade 3

How to think: The first line is the rule: a is the number before the star, and b is the number after it.

Solution: Brackets first, with 6 for a and 8 for b: $6 \times 2 + 8$ equals 20. Then 20 for a and 5 for b: $20 \times 2 + 5$ equals 45.

3. Answer: 7 · Grade 3

How to think: The first line is the rule: a is the number before the star, and b is the number after it.

Solution: Put 2 for a and 3 for b: $2 \times 2 + 3$ equals 7.

4. Answer: 13 · Grade 3

How to think: The first line is the rule: a is the number before the star, and b is the number after it.

Solution: Put 5 for a and 3 for b: $5 \times 2 + 3$ equals 13.
