



TIMO practice: Letter sums (with solutions)

12 problems · Grade 1, 2, 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 1

- 1 Each letter stands for a number. The same letters are the same number. Fill in the empty box.

$$14 - A = A$$

$$A = \boxed{}$$

Answer: _____

- 2 Each letter stands for a number. The same letters are the same number. Fill in the empty box.

$$A + A + A = 9$$

$$A = \boxed{}$$

Answer: _____

- 3 Each letter stands for a number. The same letters are the same number. Fill in the empty box.

$$A + A + A = 18$$

$$A = \boxed{}$$

Answer: _____

- 4 Each letter stands for a number. The same letters are the same number. Fill in the empty box.

$$10 - A = A$$

$$A = \boxed{}$$

Answer: _____

Grade 2

- 5 Each letter stands for a digit. Different letters are different digits. Fill in the empty box.

$$AA + AB = 45$$

$$AB = \boxed{}$$

Answer: _____

- 6 Each letter stands for a number. The same letters are the same number. Fill in the empty box.

$$86 - A = A$$

$$A = \boxed{}$$

Answer: _____

- 7 Each letter stands for a number. The same letters are the same number. Fill in the empty box.

$$30 - A = A$$

$$A = \boxed{}$$

Answer: _____

- 8 Each letter stands for a number. The same letters are the same number. Fill in the empty box.

$$82 - A = A$$

$$A = \boxed{}$$

Answer: _____

Grade 3

- 9 Each letter stands for a digit. Different letters are different digits. Fill in the empty box.

$$AB - BA = 27$$

$$A - B = \boxed{}$$

Answer: _____

- 10 Each letter stands for a digit. Different letters are different digits. Fill in the empty box.

$$AB + BA = 110$$

$$A + B = \boxed{}$$

Answer: _____

- 11 Each letter stands for a digit. Different letters are different digits. Fill in the empty box.

$$AA + AB = 128$$

$$AB = \boxed{}$$

Answer: _____

- 12 Each letter stands for a digit. Different letters are different digits. Fill in the empty box.

$$AB - BA = 9$$

$$A - B = \boxed{}$$

Answer: _____

Answers and solutions: Letter sums

1. Answer: 7 · Grade 1

How to think: Take A away from 14 and you get A again. So what is A plus A?

Solution: 14 minus A equals A, so A plus A equals 14. Two equal numbers that add up to 14 are 7 each. So A is 7.

2. Answer: 3 · Grade 1

How to think: Every A is the same number. Try numbers for A one by one.

Solution: There are 3 equal A's that add up to 9. If A is 3: 3 plus 3 plus 3 equals 9. So A is 3.

3. Answer: 6 · Grade 1

How to think: Every A is the same number. Try numbers for A one by one.

Solution: There are 3 equal A's that add up to 18. If A is 6: 6 plus 6 plus 6 equals 18. So A is 6.

4. Answer: 5 · Grade 1

How to think: Take A away from 10 and you get A again. So what is A plus A?

Solution: 10 minus A equals A, so A plus A equals 10. Two equal numbers that add up to 10 are 5 each. So A is 5.

5. Answer: 23 · Grade 2

How to think: AA is a two-digit number with two digits the same, like 33. Try each digit for A.

Solution: If A is 2: 22 plus 20 equals 42. We still need 3 more, so B is 3. If A were 3, 33 plus 30 would be 63, already more than 45. So AB is 23.

6. Answer: 43 · Grade 2

How to think: Take A away from 86 and you get A again. So what is A plus A?

Solution: 86 minus A equals A, so A plus A equals 86. Two equal numbers that add up to 86 are 43 each. So A is 43.

7. Answer: 15 · Grade 2

How to think: Take A away from 30 and you get A again. So what is A plus A?

Solution: 30 minus A equals A, so A plus A equals 30. Two equal numbers that add up to 30 are 15 each. So A is 15.

8. Answer: 41 · Grade 2

How to think: Take A away from 82 and you get A again. So what is A plus A?

Solution: 82 minus A equals A, so A plus A equals 82. Two equal numbers that add up to 82 are 41 each. So A is 41.

9. Answer: 3 · Grade 3

How to think: Try any two digits: 31 minus 13 equals 18, and 41 minus 14 equals 27. What do you notice?

Solution: For example, 96 minus 69 equals 27. AB minus BA is always 9 times A minus B. 27 divided by 9 equals 3. So A minus B is 3.

10. Answer: 10 · Grade 3

How to think: Try any two digits: 12 plus 21 equals 33, and 13 plus 31 equals 44. What do you notice?

Solution: For example, 28 plus 82 equals 110. The tens have A plus B tens and the ones have B plus A, so the sum is always 11 times A plus B. 110 divided by 11 equals 10. So A plus B is 10.

11. Answer: 62 · Grade 3

How to think: AA is a two-digit number with two digits the same, like 33. Try each digit for A.

Solution: If A is 6: 66 plus 60 equals 126. We still need 2 more, so B is 2. If A were 7, 77 plus 70 would be 147, already more than 128. So AB is 62.

12. Answer: 1 · Grade 3

How to think: Try any two digits: 31 minus 13 equals 18, and 41 minus 14 equals 27. What do you notice?

Solution: For example, 32 minus 23 equals 9. AB minus BA is always 9 times A minus B. 9 divided by 9 equals 1. So A minus B is 1.
