

WA4MNAOO1

Calculating with number

Core + Challenge

Order of Operations — No Brackets

I can use the order of operations to work out expressions with no brackets.

Name: _____ Date: _____ Score: / 53

Key idea

Order of operations (no brackets): do multiplication and division first (working left to right), then addition and subtraction (working left to right).

E.g. $6 + 3 \times 2$: multiply first ($3 \times 2 = 6$), then add ($6 + 6 = 12$).

A Fluency *practise the skill*

/16 marks

Work out the answer, following the order of operations ($\times$ and $\div$ before $+$ and $-$).

1. $6 + 3 \times 2$ _____

2. $10 - 2 \times 3$ _____

3. $4 \times 2 + 5$ _____

4. $20 - 4 \times 2$ _____

5. $3 + 6 \div 2$ _____

6. $15 - 10 \div 5$ _____

7. $2 \times 5 + 3$ _____

8. $18 \div 3 + 4$ _____

9. $7 + 2 \times 4$ _____

10. $30 - 5 \times 4$ _____

11. $9 + 12 \div 4$ _____

12. $8 \times 3 - 10$ _____

13. $5 \times 4 - 6$ _____

14. $24 \div 6 + 7$ _____

15. $16 - 3 \times 4$ _____

16. $6 \times 2 + 9$ _____

B Core *apply the skill to problems*

/21 marks

- 1 A shop sells pens for \$2 each. Mia buys 4 pens and also has a \$3 voucher. Write an expression and calculate how much she pays: $4 \times 2 - 3$.

[3 marks]

Answer: _____

- 2 A class has 5 tables with 4 chairs each, plus 3 extra chairs stacked in the corner. (a) Write an expression for the total number of chairs. (b) Calculate the total.

[4 marks]

Order of Operations — No Brackets · WA4MNAOO1

Answer: _____

3

Tickets cost \$6 each. A family buys 3 tickets and gets a \$2 discount off the total. Write an expression and find the total cost: $3 \times 6 - 2$.

[3 marks]

Answer: _____

4

A baker makes 6 trays of muffins with 8 muffins per tray, then sells 10 muffins. (a) Write an expression for the muffins remaining. (b) Calculate how many muffins are left.

[4 marks]

Answer: _____

5

A charity collects \$4 from each of 7 people, plus an extra \$5 donation. Write an expression and calculate the total raised: $7 \times 4 + 5$.

[3 marks]

Answer: _____

6

A garden has 4 rows of 9 plants, and 6 plants die. (a) Write an expression for the number of plants remaining. (b) Calculate the number remaining.

[4 marks]

Answer: _____

C

Reasoning *explain, justify and check*

/9 marks

Order of Operations — No Brackets · WA4MNAOO1

1

Explain why multiplication is done before addition when there are no brackets, using $6 + 3 \times 2$ as an example.

[2 marks]

2

A student calculates $10 - 2 \times 3$ by working left to right: $10 - 2 = 8$, then $8 \times 3 = 24$. Explain the student's error and give the correct answer.

[2 marks]

3

Explain why the order you calculate in matters, comparing what $6 + 3 \times 2$ gives when calculated strictly left to right versus using the order of operations rule.

[2 marks]

4

A student says that addition should always be done before multiplication because it comes first in the word "addition". Explain why this reasoning is incorrect.

[3 marks]

D

Challenge *multi-step and problem-solving*

/7 marks

1

Insert operations (+, −, ×, ÷) to make this true: $5 _ 4 _ 2 = 13$.

[2 marks]

Answer: _____

Order of Operations — No Brackets · WA4MNAOO1

2

Using the numbers 3, 4 and 5 once each with + and $\times$ (no brackets), write an expression that equals 23.

[2 marks]

Answer: _____

3

An expression of the form $a \times b + c = 29$ uses whole numbers for a, b and c. Find one possible set of values for a, b and c.

[3 marks]

Answer: _____

How did I go?

Fluency ___/16 Core ___/21 Reasoning ___/9 Challenge ___/7 **Total ___/53**

Stuck on a section? Our Year 4 tutors can show you exactly what to practise next. **Book a free trial class at edulift.com.au**