



Expressions with variables

GRADE 6 MATH

Name _____

Date _____

Work through the sheet in order. Substitute using parentheses and show each step; final answers go in the boxes. One skill: **expressions with variables**.

WORKED EXAMPLE

Substitute in **parentheses**, then follow the order of operations. $4p - 2$ at $p = 9 \rightarrow 4(9) - 2 = 36 - 2 = \mathbf{34}$. The parentheses stop you from gluing digits together or adding out of order.

1. Evaluate $4n$ when $n = 6$.

FLUENCY

Show your thinking

Answer

2. Evaluate $n - 7$ when $n = 15$.

FLUENCY

Show your thinking

Answer

3. Evaluate $10 + 2a$ when $a = 5$.

FLUENCY

Show your thinking

Answer

4. Evaluate $3y^2$ when $y = 2$. Show each step.

APPLICATION

Show your thinking

Answer

5. Evaluate $(m + 4) \div 2$ when $m = 10$.

APPLICATION

Show your thinking

Answer

6. Evaluate $5p - 3$ when $p = 8$.

APPLICATION

Show your thinking

Answer

7. A gym charges a \$12 joining fee plus \$8 per hour. Write an expression for the cost of h hours, then find the cost of 3 hours.

REASONING

Show your thinking

Answer

8. Evaluate $2b + 2c$ when $b = 5$ and $c = 9$. Then explain why you cannot simply add b and c first and double once.

REASONING

Show your thinking

Answer

9. Riley evaluates $3y^2$ at $y = 2$ as 36. Explain the error and give the correct value.

REASONING

Show your thinking

Answer