Substitution with signed/rational values

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. Evaluate $5x + 1$ for $x = -2$. [2 marks]

$5(-2) + 1 = -10 + 1 = -9$.

Answer: -9

2. Evaluate $a^2 + 2$ for $a = -4$. [2 marks]

$(-4)^2 + 2 = 16 + 2 = 18$.

Answer: 18

3. Evaluate $6b - 5$ for $b = \frac{1}{2}$. [2 marks]

$6 \times \frac{1}{2} - 5 = 3 - 5 = -2$.

Answer: -2

4. Evaluate $2p - 3q$ for $p = -1, q = 2$. [2 marks]

$2(-1) - 3(2) = -2 - 6 = -8$.

Answer: -8

5. Evaluate $4m + 2n$ for $m = \frac{3}{4}, n = -2$. [2 marks]

$4 \times \frac{3}{4} + 2(-2) = 3 - 4 = -1$.

Answer: -1

6. Evaluate $3(x - 2)$ for $x = -1$. [2 marks]

The bracket is $-1 - 2 = -3$.

Multiply $3(-3) = -9$.

Answer: -9