Tables and straight-line graphs

6 questions | 15 marks

Equivalent correct methods earn the corresponding marks.

1. For $y = x + 3$, find outputs for $x = -2, 0, 2$. [3 marks]

Add 3 to each input.

The pairs are $(-2, 1), (0, 3), (2, 5)$.

Answer: 1, 3 and 5.

2. For $y = 2x - 1$, find outputs for $x = -1, 0, 2$. [3 marks]

Double each input and subtract 1.

The pairs are $(-1, -3), (0, -1), (2, 3)$.

Answer: -3, -1 and 3.

3. Is $(2, 7)$ on $y = 3x + 1$? [2 marks]

Substituting $x = 2$ gives 7.

It matches the second coordinate.

Answer: Yes.

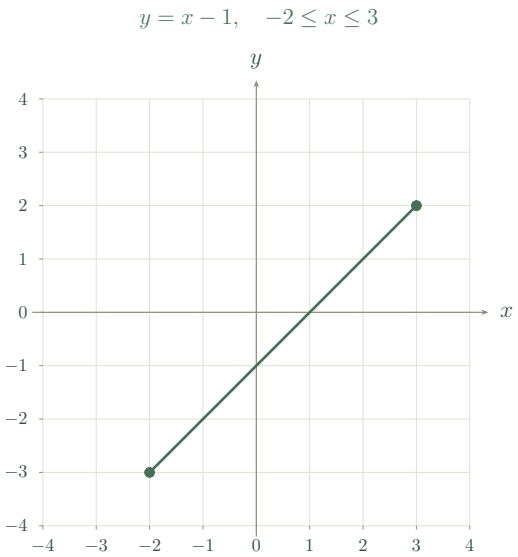
4. Is $(-2, 1)$ on $y = -x + 1$? [2 marks]

At $x = -2$, the output is 3.

The proposed output is 1.

Answer: No.

5. Draw $y = x - 1$ for $-2 \leq x \leq 3$ using a table. [3 marks]



Calculate three or more pairs.

Plot and join only over the stated interval.

Answer: A segment through $(-2, -3), (0, -1), (3, 2)$.

6. Tickets cost AUD 4 each. Does the graph $C = 4n$ for ticket purchases contain $n = 1.5$? Explain. [2 marks]

The input is a count of tickets.

Only non-negative whole-number inputs are realistic.

Answer: No, if tickets must be bought whole.