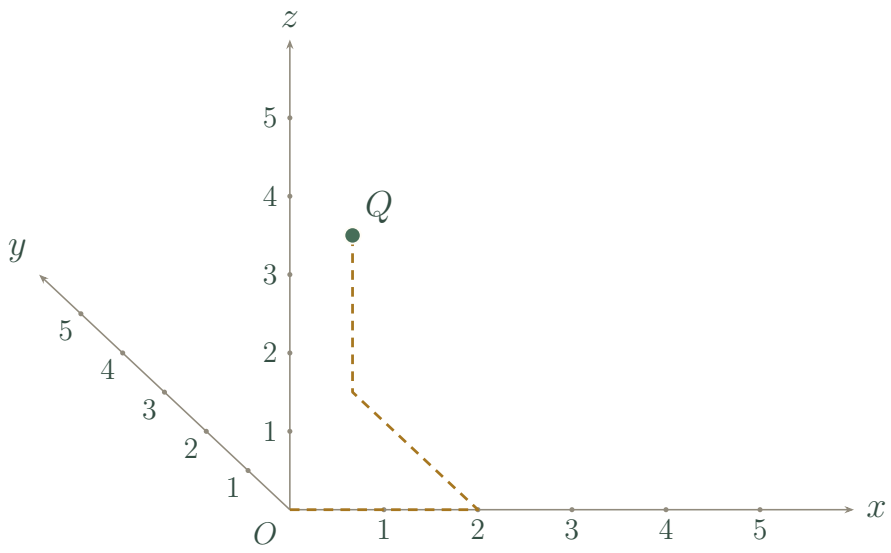
Interpreting 3D axes

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. State Q's coordinates from the labelled diagram. [2 marks]



Read the x, then y, then z legs.

Answer: $(2, 3, 2)$

2. From $(1, 2, 3)$, move parallel to x until $x = 4$. State the new position. [2 marks]

Only the first entry changes.

Answer: $(4, 2, 3)$

3. Find the floor projection of $(5, 1, 4)$. [2 marks]

Set z to zero, retaining x and y.

Answer: $(5, 1, 0)$

4. A point is on the y-axis with $y = 4$. Write its coordinates. [2 marks]

On the y-axis, x and z are zero.

Answer: $(0, 4, 0)$

5. Can you read an exact point from an unlabelled 3D sketch with no scale? Explain. [2 marks]

A drawn length alone does not identify a coordinate value.

Answer: No. Axis identities and coordinate scales are missing.

6. A construction reaches $(3, 0, 0)$, then $(3, 2, 0)$, then $(3, 2, 4)$. Name the direction of each leg. [2 marks]

Each leg changes one coordinate from the previous point.

Answer: Positive x, then positive y, then positive z.