Comparing diagrams, views and digital representations

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. Find the front view of (1,4,2), where front shows x,z. [2 marks]

Retain the first and third coordinates.

Answer: (1,2)

2. Find the side view of (3,2,5), where side shows y,z. [2 marks]

Retain the second and third coordinates.

Answer: (2,5)

3. Find the top view of (4,1,3), where top shows x,y. [2 marks]

Retain the first and second coordinates.

Answer: (4,1)

4. Front view on x,z is (2,4); top view on x,y is (2,3). Find the triple. [2 marks]

Front gives x=2,z=4; top gives y=3.

Answer: (2,3,4)

5. Do A(2,1,3) and B(2,5,3) overlap in a front view on x,z? Explain. [2 marks]

The view hides y.

Answer: Yes; both show (2,3), though their y-coordinates differ.

6. A digital model is rotated on screen. Its coordinate axes rotate with it. Must a stored point’s coordinate triple change? Explain. [2 marks]

Distinguish the screen view from a change of coordinate system.

Answer: No. Rotating the view alone does not change coordinates relative to the same axes.