Practice worksheet | Coordinates and three-dimensional space

Describing routes and relative positions

Name: _____ Date: _____

6 questions | 12 marks

1. Start at $(0, 0, 0)$. Move 2 in positive x, 3 in positive y and 1 in positive z. Give the endpoint. [2 marks]

2. Start at $(3, 2, 1)$. Move 2 in negative y. Give the endpoint. [2 marks]

3. Start at $(1, 1, 1)$. Move 4 in positive x then 2 in negative x. Give endpoint and distance. [2 marks]

4. Describe the change from $A(2, 5, 1)$ to $B(2, 1, 4)$. [2 marks]

5. Find the length of an axis-aligned route from $(1, 2, 3)$ to $(4, 1, 5)$ without reversing direction. [2 marks]

6. Mia says returning to the start means the total distance is zero. She walks 3 units out and 3 back. Correct her. [2 marks]