Practice worksheet | Vector calculus

Coordinates varying at constant rates

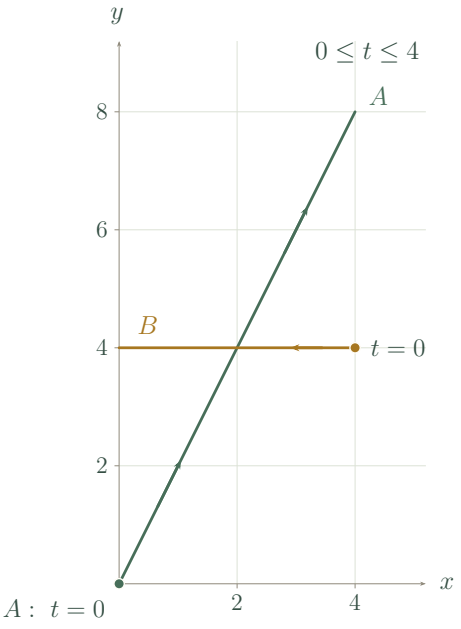
Name: _____ Date: _____

6 questions | 12 marks

1. Write position from initial $(3, 2)$ m and velocity $(4, -1)$ m/s. [2 marks]

2. Find speed for $(5 + 8t, -2 + 6t)$ m. [2 marks]

3. A is at $(t, 2t)$ and B at $(4 - t, 4)$. Find collision time. [2 marks]



4. A is at (t, t) and B at $(2-t, 3-t)$. Do they collide? [2 marks]

5. A particle moves from $(1, 1, 2)$ to $(7, -3, 2)$ in 2 s. Find constant velocity. [2 marks]

6. Find distance travelled by $(1+2t, 3+t)$ on $0 \le t \le 4$. [2 marks]