Practice worksheet | Vector calculus

Velocity, acceleration and speed

Name: _____ Date: _____

6 questions | 12 marks

1. Find speed for $(3t, 4t)$ m. [2 marks]

2. Find velocity and acceleration at 2 for (t^2, t^3). [2 marks]

3. When is $(t^2 - 2t, t^3 - 3t)$ momentarily at rest? [2 marks]

4. Given velocity (2, 1) and acceleration (-1, 0), find the speed rate. [2 marks]

5. Find speed for $(\cos 2t, \sin 2t, 3t)$. [2 marks]

6. Give an example of nonzero constant speed with zero acceleration. [2 marks]