Quiz 3 – Math 224

Print Name:

1) Find $\dfrac{dy}{dx}$ at the point $(0,1)$ for the equation $\sin(xy^2) = 2x - 2y$.

2) The position of a particle is given by $s(t) = t^3 - 6t^2 + 9t$ where t is measured in seconds and s in meters.

(a) Find the velocity and acceleration at time t.

(b) When is the particle at rest?

(c) When is the particle moving forward in the positive direction?

(d) When is the particle speeding up?