

## Quiz 3 – Math 224

Print Name:

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

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?