## Remember to show <u>all</u> of your work.

**Problem 1.** Find the derivative of  $y = (\tan x)^{(e^x)}$  (Solve for y', but no need to simplify).

Problem 2. A particle is moving on a line with position given by

$$s(t) = \frac{1}{3}t^3 - 2t^2 - 5t + 1$$

Find the values of t where

- the particle is standing still
- the particle is moving forward
- the particle is moving backward

## P