MATH 152 **QUIZ 10** NAME_____

Mrs. Bonny Tighe 25 points Monday 11/21/05

12.11-11.1 Due Monday 11/28/05

1. Expand each of the following as a power series using the binomial series. State the radius and interval of convergence.

a) $(2-x^2)^{1/2}$

b) $\dfrac{x}{(2+x)^2}$

c) $\dfrac{1}{\sqrt{4-x}}$

2. Sketch the curve by using the parametric equations to plot points. Indicate with an arrow the direction in which the curve is traced as t increases. Then eliminate the parameter to find a Cartesian equation of the curve.

a) $x = t^2 - 3,\ y = 2 - t,\ -2 \le t \le 3$

b) $x = \sin\ 2t,\ y = 2\cos t,\ 0 \le t \le \pi$

c) $x = t\sqrt{t},\ y = 1 - t^3$

d) $x = e^{2t},\ y = e^{-3t}$