MAC 2311 Hybrid Calculus I

Name Quiz # 11 **4.3-4.4** Take-Home. Show all your work.

1. Make a rough sketch of by answering a) through d)

1. domain: ­­­\_\_\_\_\_\_\_\_\_\_ *x*intercept(s): ­­­\_\_\_\_\_\_\_\_\_*y*intercept: ­­­\_\_\_\_\_\_\_\_\_symmetry (if any): ­­\_\_\_\_\_\_\_\_\_\_\_\_

vertical asymptote(s)\_\_\_\_\_\_\_\_­­­\_\_\_\_\_horizontal asymptote(s)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Critical point(s) (*x*,*y*): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Intervals where *y* is increasing \_\_\_\_\_\_\_\_\_\_\_decreasaing \_\_\_\_\_\_\_\_\_\_ Show sign chart.
3. Intervals where *y* is concave up \_\_\_\_\_\_\_\_\_\_Concave down \_\_\_\_\_\_\_\_\_\_ Show sign chart.
4. Inflection point(s) ( if any) \_\_\_\_\_\_\_\_\_\_
5. Graph (lable all points):

PAGE 1 of 2

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) Find the minimum distance between the curve and the point (3, 1). Check that your answer is a maximum.

PAGE 2 of 2