

Quiz 5

Name: _____

1. Use a Taylor polynomial of order 2 to approximate $\sqrt{3.9}$, and then give an upper bound for the error of the approximation.

2. Put the following equations in standard form. Graph your answers, labelling your graphs appropriately.

(a) $4x^2 - y^2 - 8x - 6y - 6 = 0$

(b) $x^2 - 4y - 8x - 12 = 0$

3. Find the equations of the tangent line and the normal line of

$$\frac{x^2}{32} + \frac{y^2}{4} = 1 \quad \text{at } (4, \sqrt{2}).$$