Name _____
Calculus
Newton's and Mean Value Theorem Class Work

1) Use Newton's Method to approximate the square root of 46.

2) Use Newton's Method to approximate the positive root of $f(x) = 3x^2 - 6x - 4$

3) Use Newton's Method to approximate the negative root of $f(x) = x^3 - 7x + 2$

4) Show that the Mean Value Theorem is satisfied for the equation $y = 2x^2 + 3x - 1$ over the interval [-3,2]

5) Show that Rolle's Theorem is satisfied for the equation $f(x) = x^3 - 4x$ over the interval [-2,2]. Give any/all x values that satisfy the theorem.