

4A Checkup

1. Find an equation of the line tangent to the curve $y = 2x^3 - 7x^2 + 10$ at the point $(3, 1)$

2. Show that the linearization of $f(x) = (1+x)^k$ at $x = 0$ is $L(x) = 1 + kx$

3. Use Newton's method to estimate all real solutions of the equation. Make your answers accurate to 6 decimal places.

$$f(x) = x^3 + x - 1 = 0$$