1. (4 points) Estimate the $x$-value for the point on the graph of $y = \frac{1}{4}x^4 + 17$ where the tangent line is parallel to the line $y = 4x - 3$ using Newton’s Method with an initial estimate of $x_1 = 1$. You should use this method 2 times in order to obtain estimates $x_2$ and $x_3$. 
2. (3 points) Find a formula for $f(t)$ given that $f''(t) = 2\sin t + 3e^t + 12t + 14$, $f'(0) = 3$ and $f(0) = 6$.

3. (3 points) The acceleration due to gravity near the surface of some planet is $-5 \text{ m/s}^2$. An object is thrown upward from the surface of this planet and 14 seconds later it has fallen back to the surface. What is the velocity of this object 3 seconds after being thrown?