1. Find the point on the curve $y = \sqrt{x}$ that is closest to the point $(3,0)$.

2. Use Newton’s method to approximate the root of $3x^4 - 8x^3 + 2 = 0$ (using $x_1 = 1$, calculate only $x_2$).

3. Given $f''(x) = \cos x + \sin x$, $f(0) = 3$, $f'(0) = 4$, find $f(x)$. 
