Linear Approximations

1. Let $g(x) = x^3 - 2x - 5$.

   (a) Find the linearization of $g(x)$ when $x = 2$.

   (b) The graph of $g$ is given to the right. Draw the linearization of $g$ that you found above.

2. Use linear approximation to estimate a root of $x^3 - 2x - 5$. 