1. (10 pts.) State the Mean Value Theorem.

2. In this problem $f(x)$ is a function for which $f(4) = 3$ and $f'(4) = -2$.

    (a) (6 pts.) Find the linear approximation for $f(x)$ at 4.
         Put your answer in the form $L(x) = mx + b$.

    (b) (4 pts.) Use your answer from part (a) to find the approximate value of $f(3.5)$.

1.   (10 pts.) State the Mean Value Theorem.

2. In this problem $f(x)$ is a function for which $f(3) = 5$ and $f'(3) = -2$.

   (a) (6 pts.) Find the linear approximation for $f(x)$ at 3.
       Put your answer in the form $L(x) = mx + b$.

   (b) (4 pts.) Use your answer from part (a) to find the approximate value of $f(2.5)$.