



6. The graph above shows  $f(x)$ .

a) Using the graph as reference, fill in the blanks (with numerical values, not variables). Show your work on the graph so that I can follow your reasoning.

The limit of  $f(x)$  as  $x$  approaches infinity seems to be \_\_\_\_\_ because if  $x > \underline{\hspace{1cm}}$  then  $f(x)$  will be within 0.5 units of its limit.

The limit of  $f(x)$  as  $x$  approaches \_\_\_\_\_ from the left side seems to be positive infinity because if  $x$  is within \_\_\_\_\_ units of \_\_\_\_\_ from the left side then  $f(x) > 10$

b) In the space below, sketch a graph of  $f'(x)$ .