

MATH 151 Homework 9

Due 2/18

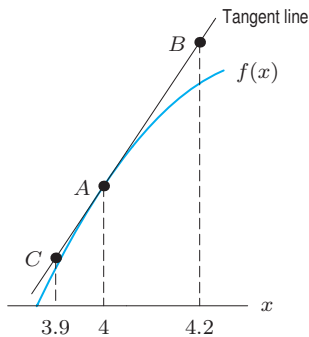
Read Sections 3.1 and 3.2.

Do Section 3.1 Exercises 6, 8, 19, 27, 32

Do Section 3.2 Exercise 1

Also, do the following exercises.

- SF24.** Is there a number whose cube is one more than the number itself? Explain your answer in complete sentences.
- SF25.** On October 17, 2006, in an article called “US Population Reaches 300 Million,” the BBC reported that the US gains 1 person every 11 seconds. If $f(t)$ is the US population in millions t years after October 17, 2006, find approximately $f(0)$ and $f'(0)$.
- SF26.** The function in the figure below has $f(4) = 25$ and $f'(4) = 1.5$. Find the coordinates of the points A , B , and C .



SF27. If $g(x) = 1/x$, find $g'(2)$.

SF28. Use the figure below to fill in the blanks in the following statements about the function g .

(a) $g(\text{---}) = \text{---}$

(b) $g'(\text{---}) = \text{---}$

