

**MA 141 Reading Assignment 11–Sec 2.7**

(1) State the definition of the derivative of a function  $f$  at a point  $a$ .

(2) What is the alternate definition (Box 3)?

(3) How is the derivative related to the slope of the tangent line?

(4) How is the derivative interpreted as a rate of change?

(5) Pick one of Examples 4, 5, or 6. Describe in your own words the situation and how the derivative is used in the solution.



(7) What are 3 ways a function  $f$  can be nondifferentiable at a point  $a$ ? Draw a graph of each situation.

(8) What is meant by the term *higher derivative*?