2A.1 Exercises

The Derivative and the Tangent Line Problem

Find $f'(x)$ using the formal definition of a derivative. Show all work.

1. $f(x) = 10x + 7$

2. $f(x) = 6x - x^2$

3. $f(x) = \sqrt{3x + 4}$

4. $f(x) = \frac{2}{x+3}$

Find these derivatives directly

5. Find $f'(3)$ if $f(x) = 3x^2 - 5$

6. Find $f'(2)$ if $f(x) = \sqrt{x + 5}$

Larson section 2.1