All odd problems in the Chapter 2 of the textbook (pages 14–15).

First, sketch the graph of the following functions for $-3 \leq x \leq 3$ by plotting $y = f(x)$ at $x = -3$, -2, -1, 0, 1, 2, 3. Second, label each point with a guess for the slope at that point. Finaly, label each point with the actual slope, computed as

$$\frac{dy}{dx} = y' = f'(x) \ .$$

1. $y = x^2 - 4$

3. $y = -\frac{x^2}{3} + \frac{x}{3} + 2$

5. $y = x^3 - 9x$

7. Find the equation of the line tangent to the graph of $y = x^2 - 4$ at the point (2,0).

9. Find the equation of the line tangent to the graph of $y = x^5$ at the point where $x = 1$.