All odd problems in the Chapter 1 of the textbook (pages 8–10).

Compute the derivative $f'(t)$ of the given function $f(t)$. (If $f(t)$ represents mileage, then $f'(t)$ represents speed.)

1. $f(t) = t^7 + t^5$

3. $f(t) = -6t^3 + 12t^2 - 4t + 7$

5. $f(t) = \frac{1}{10}t^{10} + \frac{1}{9}t^9 + \frac{1}{8}t^8$

7. $f(t) = (3t + 5)^2$ (Expand first: if you try to use the Power Rule immediately, you will get the wrong answer.)

9. $f(t) = (-2t^2 + 1)^3$ (Expand first.)

11. $f(t) = (3t^2 - 7t + 1)(t^2 + t - 1)$ (Expand first.)

Use the defenition of the derivative to compute the derivatives of the following functions.

13. $f(t) = 3t + 5$

15. $f(t) = t^2 + t + 1$

Given y, compute the derivative $y' = dy/dx$.

17. $y = 5x^2 + 7x + 9$

Use the defenition of the derivative to compute the derivatives of the following functions.

19. $y = \frac{1}{2}x^2$