Please let me know if you find any typos or errors in the answers below.

Section 2.3:
28, $f'(x) = 3(x^2 - 1), f'(x) = 0$ iff $x = \pm 1$
30, $f'(x) = \frac{-2(-2+x)x}{(1-x+x^2)^2}, f'(x) = 0$ iff $x = 2, 0$
34, $f'(x) = \frac{13}{(5+3x)^2}, f'(1) = 13/64$
42, $f''(x) = 30x^3(-4 + 15x^5)$
44, $f''(x) = -(5/4)x^{-3/2} + 18x^{-4} + (1/4)x^{-5/2}$
46, $f''(x) = 12x - 4$

Section 2.4:
2, $36 - 24x$
4, $8x^3 - 6x$
6, $-(6x)/(5 + 3x^2)^2$
10, $-x/(-9 + x^2)^{3/2}$
12, $-2/(-1 + x)^3$
16, $f'(x) = 2x(12 - 6x^2 + 5(-1 + x^2)^4), f'(1) = 12$
18, $f'(x) = (12(-1 + x^2))/x^5, f'(1/3) = -2592$
26, $f'(t) = 10t(-7 + 6t^2)(9 - 7t^2 + 3t^4)^4$
28, $f'(x) = -(4(5 + 12x))/(1 + 5x + 6x^2)^3$
30, $f'(s) = -(15s^2)/(2(2 + 5s^3)^{3/2})$
34, $g'(x) = -1/(6\sqrt{1 + 1/(3x)x^2})$
36, $f'(x) = 4(1 + 3x)^3(-3 + 5x)(-13 + 45x)$
38, $f'(y) = (12(2 + y)^2)/(-2 + y)^4$
42, $f'(x) = -(2(1 + 45x + 25x^2))/(3(3 + 2x)^{4/3})$