Name: _____
Date: _____ **Period:** _____ **Score:** _____

Find the derivative of the function.

1) $f(x) = 7x - 5$

2) $g(x) = 1 - 2x - x^2$

3) $f(x) = x^3 - 3x^2 + 5x - 2$

4) $f(x) = \frac{1}{8}x^8 - x^4$

5) $F(t) = \frac{1}{4}t^4 - \frac{1}{2}t^2$

6) $v(r) = \frac{4}{3}\pi r^3$

7) $G(y) = y^{10} + 7y^5 - y^3 + 1$

8) $F(x) = x^2 + 3x + \frac{1}{x^2}$

9) $g(x) = 4x^4 - \frac{1}{4}x^4$

10) $g(x) = \frac{3}{x^2} + \frac{5}{x^4}$

11) $f(s) = \sqrt{3}(s^3 - s^2)$

12) $f(x) = (2x^4 - 1)(5x^3 + 6x)$

13) $G(y) = (7 - 3y^3)^2$

14) $D_x[(x^2 - 3x + 2)(2x^3 + 1)]$

15) $D_x\left(\frac{x}{x-1}\right)$

16) $\frac{d}{dx}\left(\frac{x^2+2x+1}{x^2-2x+1}\right)$

17) $\frac{d}{d_t}\left(\frac{5t}{1-2t^2}\right)$