

Derivative Practice  
(can't have enough practice)

If you can find the derivatives of the following functions you will be doing great!!!

- (1)  $f(x) = 2x^3 - 3x + 5$
- (2)  $g(x) = 3x^5 - 4x^7 + 6$
- (3)  $h(x) = e^{x^2+5x}$
- (4)  $P(q) = \ln(x^3 + 5)$
- (5)  $R(q) = (\ln(q + 2))^2$
- (6)  $C(q) = q^3 + 3q - e^{2q^2-5q}$
- (7)  $D(p) = p^7 - 7p^2 + 9p - 6 + e^{p^9-p^7+p^6}$
- (8)  $S(p) = p^3 + 3p + (e^{2p^2})^3 + 700000$
- (9)  $f(x) = \frac{x^3-3x^2}{2x^7-7x}$
- (10)  $g(x) = 3x^3e^{2x}$
- (11)  $h(x) = \frac{x^7-7x}{x^4e^{x^5}}$
- (12)  $P(q) = \frac{15q^3-8q+8000000000}{e^{q^3+8q}}$
- (13)  $R(q) = 2000q^{800} + 5000q^{798080} + 1.7$
- (14)  $C(q) = \frac{q+2}{800q-1}$
- (15)  $D(p) = p^3 - 7p - 7894561232165478958674123$
- (16)  $S(p) = \frac{pe^{p^7-7}}{p^6-8p}$
- (17)  $f(x) = \frac{2x^3-3x+5}{3x^5-4x^7+6}$
- (18)  $g(x) = (\ln(x^3 + 5)) \cdot \left( \frac{q+2}{800q-1} \right)$
- (19)  $h(x) = 89x$
- (20)  $P(q) = \frac{3q^5-4q^7+6}{2q^3-3q+8}$
- (21)  $R(q) = (2q^3 - 3q + 5) \cdot (3q^5 - 4q^7 + 6)$
- (22)  $f(x) = \frac{1}{\sqrt{x}}$
- (23)  $g(x) = \frac{1}{x^3}$
- (24)  $h(x) = \frac{3}{x^3} + x^4 + 7x^8$