Name: _____ Score: _____

Teacher: _____ Date: _____

Basic rules of derivative

Use the basic rules of derivative to find the derivative of the following functions.

1. $f(x) = 6x^3 - 9x + 4$
2. $y = 2t^4 - 10t^2 + 13t$
3. $g(z) = 4z^7 - 3z^{-7} + 9z$
4. $h(y) = y^{-4} - 9y^{-3} + 8y^{-2} + 12$
5. $y = \sqrt{x} + 8\sqrt[3]{x} - 2\sqrt[4]{x}$
6. $f(t) = \frac{4}{t} - \frac{1}{6t^3} + \frac{8}{t^5}$
7. $R(z) = \frac{6}{\sqrt{z^3}} + \frac{1}{8z^4} - \frac{1}{3z^{10}}$
8. $h(x) = \frac{4x^3 - 7x + 8}{x}$
9. $f(y) = \frac{y^5 - 5y^3 + 2y}{y^3}$
10. $f(x) = \frac{4x^3 + 2x^2 - 7}{3}$