

Differentiation Using a Combination of Rules

'Simple Rule' Differentiation.

Find derivatives for each of the following:

a) $y = 251x^{100}$

b) $y = 3x^2 + 2x$

c) $y = (5x^2 - 3)(2x^3 + 1)$ practice your product rule with this one.

d) $y = \frac{4x^3 + 1}{x^2 - 2}$

e) $y = (2x^5 - 5)^3$

"Multiple Skilled" Differentiation – Chain Rule Advanced.

Differentiate the following:

a) $y = \left(\frac{2x - 1}{x + 2}\right)^6$

b) $y = (x^2 + 1)^3(2 - 3x)^4$

c) $y = \sqrt{x + \sqrt{x^2 + 1}}$

Practice

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... and more if you have time.