

Product and Quotient Rule

Date _____ Period _____

Differentiate each function with respect to x .

1) $y = (-4x^4 + 5) \cdot -2x^2$

2) $y = (3x^3 + 1) \cdot 5x^3$

3) $y = (-3x^2 - 2)(-2x^5 - 4)$

4) $y = (x^5 + 5)(2x^5 - 5)$

5) $y = \frac{3}{5x^2 - 4}$

6) $y = \frac{2}{4x^2 + 3}$

7) $y = \frac{5x^5 - 4}{5x^4 - 4}$

8) $y = \frac{4x^4 + 4x^3}{4x^5 - 3}$