# 微分 導関数（16問）　版Fの答え

※ 定数項は微分すると0になります。消し忘れていないかを見てください。

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(1) $y = -5x^3 - 6x^2 - 5x - 1$
$y' = -15x^2 - 12x - 5$

(2) $y = -2x^3 - 7x^2 + 8x + 5$
$y' = -6x^2 - 14x + 8$

(3) $y = -5x^3 - 7x^2 - 6x + 9$
$y' = -15x^2 - 14x - 6$

(4) $y = (2x - 2)(2x + 2)$
$y' = 8x$

(5) $y = 3x^4 + 2x^3 - 4x^2 - 2x + 2$
$y' = 12x^3 + 6x^2 - 8x - 2$

(6) $y = -x^3 + 5x^2 + 9x + 9$
$y' = -3x^2 + 10x + 9$

(7) $y = 3x^2 + 6x + 3$
$y' = 6x + 6$

(8) $y = 3x^4 + 7x^3 + 7x^2 - 8x - 3$
$y' = 12x^3 + 21x^2 + 14x - 8$

(9) $y = -2x^3 + 7x^2 + 6$
$y' = -6x^2 + 14x$

(10) $y = (x - 2)(2x + 1)$
$y' = 4x - 3$

(11) $y = x^4 + 6x^3 + 2x^2 + 6x + 1$
$y' = 4x^3 + 18x^2 + 4x + 6$

(12) $y = (x + 3)(x - 4)$
$y' = 2x - 1$

(13) $y = (2x - 4)(x - 6)$
$y' = 4x - 16$

(14) $y = -3x^3 - 3x^2 - x - 2$
$y' = -9x^2 - 6x - 1$

(15) $y = 2x^3 - 7x^2 - 9x + 5$
$y' = 6x^2 - 14x - 9$

(16) $y = x^4 - 7x^3 + 3x^2 - 5x + 7$
$y' = 4x^3 - 21x^2 + 6x - 5$