微分 導関数（16問）　版A

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = -4x^4 + 8x^3 - 2x^2 + x - 6$

(2) $y = (2x - 4)(x + 1)$

(3) $y = (x + 5)(3x - 4)$

(4) $y = -x^4 - 2x^3 + 3x^2 + 8x$

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

(6) $y = -x^3 - 8x^2 - 9x + 2$

(7) $y = x^3 - x^2 + 8x + 9$

(8) $y = (3x + 6)(x + 3)$

(9) $y = 2x^4 - 9x^3 + 9x^2 + 1$

(10) $y = 4x^2 - 6x + 3$

(11) $y = -2x^4 - 9x^3 - x - 3$

(12) $y = -5x^3 + 2x^2 - 4x + 9$

(13) $y = (x - 1)(x + 1)$

(14) $y = -2x^3 + 4x^2 - x + 8$

(15) $y = -2x^3 + 2x^2 - 7x - 9$

(16) $y = -2x^3 + 8x^2 + 5x - 7$

微分 導関数（16問）　版B

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = -2x^4 - 8x^3 + 8x^2 - 9$

(2) $y = (2x + 2)(2x + 1)$

(3) $y = 3x^4 + 7x^3 - 5x^2 + 2x + 7$

(4) $y = 4x^3 + 3x^2 - 3x - 6$

(5) $y = -5x^3 + 4x^2 - 9x$

(6) $y = 5x^4 - 2x^3 - 3x^2 + 5x + 1$

(7) $y = -3x^4 - 7x^3 + 7x^2 + x - 8$

(8) $y = -x^3 - x^2 - 9x + 2$

(9) $y = x^3 - 3x^2 + 5x + 8$

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

(11) $y = (x - 5)(2x + 1)$

(12) $y = 2x^2 + x - 7$

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

(14) $y = -x^2 - x - 8$

(15) $y = (2x + 6)(x + 6)$

(16) $y = (3x + 6)(x + 4)$

微分 導関数（16問）　版C

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = 4x^3 - 2x^2 + 9x - 5$

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

(3) $y = (2x - 5)(x - 1)$

(4) $y = 3x^3 - 3x^2 - 7x - 6$

(5) $y = (x + 2)(x + 1)$

(6) $y = (2x - 4)(3x + 5)$

(7) $y = 4x^3 + 5x^2 + 7x - 2$

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

(9) $y = -4x^3 + 3x + 9$

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

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

(12) $y = -x^3 - 8$

(13) $y = 5x^3 - 2x^2 - 7x - 4$

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

(15) $y = (x - 5)(3x + 6)$

(16) $y = 4x^4 + 8x^3 + 7x^2 - 2x - 5$

微分 導関数（16問）　版D

組　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = 2x^3 + 5x^2 - 7x + 1$

(2) $y = (2x + 1)(3x - 3)$

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

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

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

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

(7) $y = (x - 2)(3x - 3)$

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

(9) $y = 4x^2 + 4x - 8$

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

(11) $y = 5x^3 + 4x^2 + 4x - 8$

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

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

(14) $y = -x^4 + 3x^3 - 5x^2 + 7x + 9$

(15) $y = (x - 5)(3x + 2)$

(16) $y = 4x^4 - 3x^3 + 7x + 1$

微分 導関数（16問）　版E

組　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = -3x^2 + 9x + 8$

(2) $y = (x + 6)(x + 5)$

(3) $y = -x^3 - 2x^2 - 8x - 1$

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

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

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

(7) $y = (x - 3)(2x - 2)$

(8) $y = 2x^2 + 9x + 2$

(9) $y = 3x^4 + x^3 + 6x^2 + 5x - 2$

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

(11) $y = -3x^3 + 2x^2 + 9x + 5$

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

(13) $y = -2x^2 - 9x - 9$

(14) $y = (x + 3)(x - 3)$

(15) $y = (3x + 2)(2x + 6)$

(16) $y = -5x^4 + 4x^2 + 2x + 8$

微分 導関数（16問）　版F

組　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

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

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

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

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

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

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

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

(8) $y = 3x^4 + 7x^3 + 7x^2 - 8x - 3$

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

(10) $y = (x - 2)(2x + 1)$

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

(12) $y = (x + 3)(x - 4)$

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

(14) $y = -3x^3 - 3x^2 - x - 2$

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

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

微分 導関数（16問）　版G

組　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

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

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

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

(4) $y = (x + 1)(2x - 2)$

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

(6) $y = x^2 - 5x - 5$

(7) $y = (2x + 5)(2x - 6)$

(8) $y = -5x^3 + 9x^2 - 5x$

(9) $y = -2x^2 + x + 3$

(10) $y = -3x^4 + 5x^3 - 7x^2 + 4x - 1$

(11) $y = -5x^4 + 2x^3 + 9x^2 + 3x - 3$

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

(13) $y = 2x^4 - 7x^3 + 6x^2 - 2$

(14) $y = 2x^2 + 5x - 8$

(15) $y = -4x^4 + 3x^3 + 6x^2 + 5x + 6$

(16) $y = -4x^3 + 4x^2 - 5x + 1$

微分 導関数（16問）　版H

組　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = (3x - 4)(3x + 5)$

(2) $y = (x + 4)(3x - 4)$

(3) $y = -4x^3 + 5x^2 + 6x - 9$

(4) $y = -4x^3 + 7x^2 - 2x - 1$

(5) $y = x^3 + 7x^2 - 6x + 1$

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

(7) $y = (2x - 4)(x - 4)$

(8) $y = -x^3 - 2x^2 - 6x - 9$

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

(10) $y = -x^2 + 4x - 7$

(11) $y = (2x + 2)(x + 2)$

(12) $y = -4x^3 + 2x^2 - 9x + 2$

(13) $y = -x^3 + x^2 + 9x - 3$

(14) $y = -2x^3 - 9x^2 - 8x + 3$

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

(16) $y = -x^3 + 9x^2 - 8x - 1$

微分 導関数（16問）　版I

組　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = 3x^2 - 7x - 4$

(2) $y = -2x^2 + 2x + 1$

(3) $y = 4x^2 + 3x + 6$

(4) $y = -2x^4 + 2x^3 - 6x^2 + 3x - 1$

(5) $y = -5x^4 + x^3 - 3x^2 + 1$

(6) $y = 3x^2 - x - 8$

(7) $y = 5x^4 - 7x^3 - 7x^2 - 6x - 1$

(8) $y = 4x^4 + 8x^3 + 5x^2 + 3x + 3$

(9) $y = (2x + 5)(2x - 3)$

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

(11) $y = -3x^4 + 8x^3 + 2x^2 - 4x + 9$

(12) $y = (2x - 6)(x + 6)$

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

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

(15) $y = (2x + 6)(3x + 5)$

(16) $y = (3x + 5)(2x - 3)$

微分 導関数（16問）　版J

組　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = (x - 3)(x + 2)$

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

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

(4) $y = (3x - 6)(2x + 3)$

(5) $y = (3x - 1)(x - 6)$

(6) $y = x^2 - 4x - 7$

(7) $y = (3x + 6)(3x - 1)$

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

(9) $y = -3x^3 + 8x + 1$

(10) $y = 2x^3 + 6x - 4$

(11) $y = -x^2 + 8x + 2$

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

(13) $y = 3x^2 - 3x + 2$

(14) $y = 4x^3 - 2x^2 - x - 7$

(15) $y = -x^3 + 3x^2 - 6x + 1$

(16) $y = 5x^4 - 7x^3 + x^2 - 4x - 9$

微分 導関数（16問）　版K

組　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = -5x^3 + 5x^2 - 8x + 5$

(2) $y = (3x - 3)(2x + 1)$

(3) $y = 5x^4 - 7x^2 + 8x - 5$

(4) $y = x^3 + 9x^2 + 4x - 1$

(5) $y = x^2 - 7x + 1$

(6) $y = 2x^3 + x^2 + 6x + 8$

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

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

(9) $y = (2x + 3)(x - 2)$

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

(11) $y = (3x + 5)(2x - 1)$

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

(13) $y = 5x^3 - 8x^2 + 6x - 9$

(14) $y = (2x - 2)(2x - 1)$

(15) $y = -4x^2 - 7x - 6$

(16) $y = -3x^4 - 2x^3 + 9x^2 - 9x + 7$

微分 導関数（16問）　版L

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = (x - 5)(3x + 1)$

(2) $y = 4x^4 + 7x^3 + 6x^2 + 9x - 7$

(3) $y = (x + 6)(x + 4)$

(4) $y = 3x^3 - 4x^2 - 9x + 8$

(5) $y = 4x^3 - 9x^2 + 9x - 9$

(6) $y = 4x^4 + 3x^2 + 4$

(7) $y = x^2 - x - 2$

(8) $y = -2x^3 - 3x^2 - 7x + 1$

(9) $y = -x^2 + 5x - 7$

(10) $y = (x - 3)(2x - 2)$

(11) $y = (3x - 2)(2x - 5)$

(12) $y = 4x^4 - 6x^3 + 2x^2 + 5x + 9$

(13) $y = -2x^2 - 5x + 6$

(14) $y = x^4 + 8x^3 - 3x^2 - x - 1$

(15) $y = -2x^2 - 6x - 7$

(16) $y = 4x^3 - 9x^2 + 9x + 5$

微分 導関数（16問）　版M

組　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = -2x^4 - 9x^3 + 7x^2 - 3x - 2$

(2) $y = -3x^3 - 2x^2 + 7x - 4$

(3) $y = -3x^3 - 4x^2 - 8x + 8$

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

(5) $y = 2x^3 - x^2 - 6$

(6) $y = (3x - 1)(2x - 6)$

(7) $y = (3x - 6)(3x + 3)$

(8) $y = -5x^4 - 3x^3 + 7x^2 - 8x + 5$

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

(10) $y = -3x^4 - 8x^3 + 2x^2 + x - 1$

(11) $y = -5x^4 - x^3 + 5x^2 - x + 7$

(12) $y = 5x^3 + 4x^2 - 8x + 9$

(13) $y = -2x^2 + 7x - 1$

(14) $y = (2x - 3)(2x - 6)$

(15) $y = -x^3 + 8x^2 - 6x + 4$

(16) $y = (x + 1)(2x + 6)$

微分 導関数（16問）　版N

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = 2x^3 + 6x^2 - x - 8$

(2) $y = (2x + 2)(x + 5)$

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

(4) $y = x^3 + 3x^2 - 6$

(5) $y = (x - 5)(3x + 4)$

(6) $y = -5x^2 + 8x - 5$

(7) $y = -x^3 - 9x^2 + 8x - 6$

(8) $y = -5x^3 + 2x^2 - 2x + 3$

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

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

(11) $y = -2x^4 + 9x^3 + 7x^2 + 9x + 4$

(12) $y = (2x + 5)(x - 1)$

(13) $y = -x^3 - 4x^2 + 6x - 9$

(14) $y = (2x + 1)(3x - 2)$

(15) $y = 5x^3 + 8x^2 + 7x + 8$

(16) $y = -5x^3 - 2x^2 + 8x - 8$

微分 導関数（16問）　版O

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／16問

(1) $y = 4x^2 + 8x - 5$

(2) $y = -x^4 - 5x^3 - 9x^2 - 2x - 9$

(3) $y = -x^3 + 7x^2 + 9x + 8$

(4) $y = x^4 - x^3 + 8x^2 + 2x - 8$

(5) $y = 5x^3 + 7x + 6$

(6) $y = -3x^3 + 7x^2 - 1$

(7) $y = x^3 + 7x + 5$

(8) $y = (3x + 5)(2x - 2)$

(9) $y = 4x^3 + 4x^2 - 8x - 7$

(10) $y = (x - 1)(3x - 2)$

(11) $y = -2x^3 - 7x^2 - 7x - 4$

(12) $y = 4x^4 + 8x^3 + 8x^2 + 8x$

(13) $y = (x - 3)(3x + 3)$

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

(15) $y = (x - 6)(3x + 1)$

(16) $y = -x^3 + 6x + 6$

微分 導関数（16問）　版A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。

---

(1) $y = -4x^4 + 8x^3 - 2x^2 + x - 6$
$y' = -16x^3 + 24x^2 - 4x + 1$

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

(3) $y = (x + 5)(3x - 4)$
$y' = 6x + 11$

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

(5) $y = -x^3 + 8x^2 - 7x - 5$
$y' = -3x^2 + 16x - 7$

(6) $y = -x^3 - 8x^2 - 9x + 2$
$y' = -3x^2 - 16x - 9$

(7) $y = x^3 - x^2 + 8x + 9$
$y' = 3x^2 - 2x + 8$

(8) $y = (3x + 6)(x + 3)$
$y' = 6x + 15$

(9) $y = 2x^4 - 9x^3 + 9x^2 + 1$
$y' = 8x^3 - 27x^2 + 18x$

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

(11) $y = -2x^4 - 9x^3 - x - 3$
$y' = -8x^3 - 27x^2 - 1$

(12) $y = -5x^3 + 2x^2 - 4x + 9$
$y' = -15x^2 + 4x - 4$

(13) $y = (x - 1)(x + 1)$
$y' = 2x$

(14) $y = -2x^3 + 4x^2 - x + 8$
$y' = -6x^2 + 8x - 1$

(15) $y = -2x^3 + 2x^2 - 7x - 9$
$y' = -6x^2 + 4x - 7$

(16) $y = -2x^3 + 8x^2 + 5x - 7$
$y' = -6x^2 + 16x + 5$

微分 導関数（16問）　版B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。

---

(1) $y = -2x^4 - 8x^3 + 8x^2 - 9$
$y' = -8x^3 - 24x^2 + 16x$

(2) $y = (2x + 2)(2x + 1)$
$y' = 8x + 6$

(3) $y = 3x^4 + 7x^3 - 5x^2 + 2x + 7$
$y' = 12x^3 + 21x^2 - 10x + 2$

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

(5) $y = -5x^3 + 4x^2 - 9x$
$y' = -15x^2 + 8x - 9$

(6) $y = 5x^4 - 2x^3 - 3x^2 + 5x + 1$
$y' = 20x^3 - 6x^2 - 6x + 5$

(7) $y = -3x^4 - 7x^3 + 7x^2 + x - 8$
$y' = -12x^3 - 21x^2 + 14x + 1$

(8) $y = -x^3 - x^2 - 9x + 2$
$y' = -3x^2 - 2x - 9$

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

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

(11) $y = (x - 5)(2x + 1)$
$y' = 4x - 9$

(12) $y = 2x^2 + x - 7$
$y' = 4x + 1$

(13) $y = 2x^3 - 2x^2 - 2x - 5$
$y' = 6x^2 - 4x - 2$

(14) $y = -x^2 - x - 8$
$y' = -2x - 1$

(15) $y = (2x + 6)(x + 6)$
$y' = 4x + 18$

(16) $y = (3x + 6)(x + 4)$
$y' = 6x + 18$

微分 導関数（16問）　版C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。

---

(1) $y = 4x^3 - 2x^2 + 9x - 5$
$y' = 12x^2 - 4x + 9$

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

(3) $y = (2x - 5)(x - 1)$
$y' = 4x - 7$

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

(5) $y = (x + 2)(x + 1)$
$y' = 2x + 3$

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

(7) $y = 4x^3 + 5x^2 + 7x - 2$
$y' = 12x^2 + 10x + 7$

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

(9) $y = -4x^3 + 3x + 9$
$y' = -12x^2 + 3$

(10) $y = -2x^2 - 9x + 6$
$y' = -4x - 9$

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

(12) $y = -x^3 - 8$
$y' = -3x^2$

(13) $y = 5x^3 - 2x^2 - 7x - 4$
$y' = 15x^2 - 4x - 7$

(14) $y = -5x^2 + 7x - 6$
$y' = -10x + 7$

(15) $y = (x - 5)(3x + 6)$
$y' = 6x - 9$

(16) $y = 4x^4 + 8x^3 + 7x^2 - 2x - 5$
$y' = 16x^3 + 24x^2 + 14x - 2$

微分 導関数（16問）　版D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。

---

(1) $y = 2x^3 + 5x^2 - 7x + 1$
$y' = 6x^2 + 10x - 7$

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

(3) $y = (2x - 2)(3x - 4)$
$y' = 12x - 14$

(4) $y = -5x^3 + 8x^2 - 6x - 6$
$y' = -15x^2 + 16x - 6$

(5) $y = 4x^4 - 5x^3 + x^2 + 4x - 6$
$y' = 16x^3 - 15x^2 + 2x + 4$

(6) $y = -3x^3 + 9x^2 + 2x$
$y' = -9x^2 + 18x + 2$

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

(8) $y = -3x^3 + 2x + 1$
$y' = -9x^2 + 2$

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

(10) $y = -2x^2 + 3x - 6$
$y' = -4x + 3$

(11) $y = 5x^3 + 4x^2 + 4x - 8$
$y' = 15x^2 + 8x + 4$

(12) $y = -2x^4 - 6x^3 - x^2 - 3x + 5$
$y' = -8x^3 - 18x^2 - 2x - 3$

(13) $y = -x^4 - 5x^3 + 5x^2 + 3x - 5$
$y' = -4x^3 - 15x^2 + 10x + 3$

(14) $y = -x^4 + 3x^3 - 5x^2 + 7x + 9$
$y' = -4x^3 + 9x^2 - 10x + 7$

(15) $y = (x - 5)(3x + 2)$
$y' = 6x - 13$

(16) $y = 4x^4 - 3x^3 + 7x + 1$
$y' = 16x^3 - 9x^2 + 7$

微分 導関数（16問）　版E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。

---

(1) $y = -3x^2 + 9x + 8$
$y' = -6x + 9$

(2) $y = (x + 6)(x + 5)$
$y' = 2x + 11$

(3) $y = -x^3 - 2x^2 - 8x - 1$
$y' = -3x^2 - 4x - 8$

(4) $y = 4x^4 + 6x^3 - 5x^2 + 5x - 5$
$y' = 16x^3 + 18x^2 - 10x + 5$

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

(6) $y = -x^3 + 8x^2 + x - 7$
$y' = -3x^2 + 16x + 1$

(7) $y = (x - 3)(2x - 2)$
$y' = 4x - 8$

(8) $y = 2x^2 + 9x + 2$
$y' = 4x + 9$

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

(10) $y = -2x^3 + 9x^2 - 9x - 9$
$y' = -6x^2 + 18x - 9$

(11) $y = -3x^3 + 2x^2 + 9x + 5$
$y' = -9x^2 + 4x + 9$

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

(13) $y = -2x^2 - 9x - 9$
$y' = -4x - 9$

(14) $y = (x + 3)(x - 3)$
$y' = 2x$

(15) $y = (3x + 2)(2x + 6)$
$y' = 12x + 22$

(16) $y = -5x^4 + 4x^2 + 2x + 8$
$y' = -20x^3 + 8x + 2$

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。

---

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

微分 導関数（16問）　版G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。

---

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

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

(3) $y = -x^3 - 6x^2 - 2x - 9$
$y' = -3x^2 - 12x - 2$

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

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

(6) $y = x^2 - 5x - 5$
$y' = 2x - 5$

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

(8) $y = -5x^3 + 9x^2 - 5x$
$y' = -15x^2 + 18x - 5$

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

(10) $y = -3x^4 + 5x^3 - 7x^2 + 4x - 1$
$y' = -12x^3 + 15x^2 - 14x + 4$

(11) $y = -5x^4 + 2x^3 + 9x^2 + 3x - 3$
$y' = -20x^3 + 6x^2 + 18x + 3$

(12) $y = 3x^3 - 6x^2 - 6x + 4$
$y' = 9x^2 - 12x - 6$

(13) $y = 2x^4 - 7x^3 + 6x^2 - 2$
$y' = 8x^3 - 21x^2 + 12x$

(14) $y = 2x^2 + 5x - 8$
$y' = 4x + 5$

(15) $y = -4x^4 + 3x^3 + 6x^2 + 5x + 6$
$y' = -16x^3 + 9x^2 + 12x + 5$

(16) $y = -4x^3 + 4x^2 - 5x + 1$
$y' = -12x^2 + 8x - 5$

微分 導関数（16問）　版H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。

---

(1) $y = (3x - 4)(3x + 5)$
$y' = 18x + 3$

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

(3) $y = -4x^3 + 5x^2 + 6x - 9$
$y' = -12x^2 + 10x + 6$

(4) $y = -4x^3 + 7x^2 - 2x - 1$
$y' = -12x^2 + 14x - 2$

(5) $y = x^3 + 7x^2 - 6x + 1$
$y' = 3x^2 + 14x - 6$

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

(7) $y = (2x - 4)(x - 4)$
$y' = 4x - 12$

(8) $y = -x^3 - 2x^2 - 6x - 9$
$y' = -3x^2 - 4x - 6$

(9) $y = -x^4 - 2x^3 + 2x^2 - x - 5$
$y' = -4x^3 - 6x^2 + 4x - 1$

(10) $y = -x^2 + 4x - 7$
$y' = -2x + 4$

(11) $y = (2x + 2)(x + 2)$
$y' = 4x + 6$

(12) $y = -4x^3 + 2x^2 - 9x + 2$
$y' = -12x^2 + 4x - 9$

(13) $y = -x^3 + x^2 + 9x - 3$
$y' = -3x^2 + 2x + 9$

(14) $y = -2x^3 - 9x^2 - 8x + 3$
$y' = -6x^2 - 18x - 8$

(15) $y = -x^3 + 9x^2 - 5x + 6$
$y' = -3x^2 + 18x - 5$

(16) $y = -x^3 + 9x^2 - 8x - 1$
$y' = -3x^2 + 18x - 8$

微分 導関数（16問）　版I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。

---

(1) $y = 3x^2 - 7x - 4$
$y' = 6x - 7$

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

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

(4) $y = -2x^4 + 2x^3 - 6x^2 + 3x - 1$
$y' = -8x^3 + 6x^2 - 12x + 3$

(5) $y = -5x^4 + x^3 - 3x^2 + 1$
$y' = -20x^3 + 3x^2 - 6x$

(6) $y = 3x^2 - x - 8$
$y' = 6x - 1$

(7) $y = 5x^4 - 7x^3 - 7x^2 - 6x - 1$
$y' = 20x^3 - 21x^2 - 14x - 6$

(8) $y = 4x^4 + 8x^3 + 5x^2 + 3x + 3$
$y' = 16x^3 + 24x^2 + 10x + 3$

(9) $y = (2x + 5)(2x - 3)$
$y' = 8x + 4$

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

(11) $y = -3x^4 + 8x^3 + 2x^2 - 4x + 9$
$y' = -12x^3 + 24x^2 + 4x - 4$

(12) $y = (2x - 6)(x + 6)$
$y' = 4x + 6$

(13) $y = -x^2 - x + 5$
$y' = -2x - 1$

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

(15) $y = (2x + 6)(3x + 5)$
$y' = 12x + 28$

(16) $y = (3x + 5)(2x - 3)$
$y' = 12x + 1$

微分 導関数（16問）　版J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。

---

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

(2) $y = -5x^3 + 8x^2 + 8x + 4$
$y' = -15x^2 + 16x + 8$

(3) $y = 5x^3 - 2x^2 - 6x + 5$
$y' = 15x^2 - 4x - 6$

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

(5) $y = (3x - 1)(x - 6)$
$y' = 6x - 19$

(6) $y = x^2 - 4x - 7$
$y' = 2x - 4$

(7) $y = (3x + 6)(3x - 1)$
$y' = 18x + 15$

(8) $y = -5x^3 + x^2 - 4x + 2$
$y' = -15x^2 + 2x - 4$

(9) $y = -3x^3 + 8x + 1$
$y' = -9x^2 + 8$

(10) $y = 2x^3 + 6x - 4$
$y' = 6x^2 + 6$

(11) $y = -x^2 + 8x + 2$
$y' = -2x + 8$

(12) $y = -3x^3 + 4x^2 - 5x + 3$
$y' = -9x^2 + 8x - 5$

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

(14) $y = 4x^3 - 2x^2 - x - 7$
$y' = 12x^2 - 4x - 1$

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

(16) $y = 5x^4 - 7x^3 + x^2 - 4x - 9$
$y' = 20x^3 - 21x^2 + 2x - 4$

微分 導関数（16問）　版K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。

---

(1) $y = -5x^3 + 5x^2 - 8x + 5$
$y' = -15x^2 + 10x - 8$

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

(3) $y = 5x^4 - 7x^2 + 8x - 5$
$y' = 20x^3 - 14x + 8$

(4) $y = x^3 + 9x^2 + 4x - 1$
$y' = 3x^2 + 18x + 4$

(5) $y = x^2 - 7x + 1$
$y' = 2x - 7$

(6) $y = 2x^3 + x^2 + 6x + 8$
$y' = 6x^2 + 2x + 6$

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

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

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

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

(11) $y = (3x + 5)(2x - 1)$
$y' = 12x + 7$

(12) $y = -5x^4 + 3x^3 + 4x^2 - 2x - 3$
$y' = -20x^3 + 9x^2 + 8x - 2$

(13) $y = 5x^3 - 8x^2 + 6x - 9$
$y' = 15x^2 - 16x + 6$

(14) $y = (2x - 2)(2x - 1)$
$y' = 8x - 6$

(15) $y = -4x^2 - 7x - 6$
$y' = -8x - 7$

(16) $y = -3x^4 - 2x^3 + 9x^2 - 9x + 7$
$y' = -12x^3 - 6x^2 + 18x - 9$

微分 導関数（16問）　版L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。

---

(1) $y = (x - 5)(3x + 1)$
$y' = 6x - 14$

(2) $y = 4x^4 + 7x^3 + 6x^2 + 9x - 7$
$y' = 16x^3 + 21x^2 + 12x + 9$

(3) $y = (x + 6)(x + 4)$
$y' = 2x + 10$

(4) $y = 3x^3 - 4x^2 - 9x + 8$
$y' = 9x^2 - 8x - 9$

(5) $y = 4x^3 - 9x^2 + 9x - 9$
$y' = 12x^2 - 18x + 9$

(6) $y = 4x^4 + 3x^2 + 4$
$y' = 16x^3 + 6x$

(7) $y = x^2 - x - 2$
$y' = 2x - 1$

(8) $y = -2x^3 - 3x^2 - 7x + 1$
$y' = -6x^2 - 6x - 7$

(9) $y = -x^2 + 5x - 7$
$y' = -2x + 5$

(10) $y = (x - 3)(2x - 2)$
$y' = 4x - 8$

(11) $y = (3x - 2)(2x - 5)$
$y' = 12x - 19$

(12) $y = 4x^4 - 6x^3 + 2x^2 + 5x + 9$
$y' = 16x^3 - 18x^2 + 4x + 5$

(13) $y = -2x^2 - 5x + 6$
$y' = -4x - 5$

(14) $y = x^4 + 8x^3 - 3x^2 - x - 1$
$y' = 4x^3 + 24x^2 - 6x - 1$

(15) $y = -2x^2 - 6x - 7$
$y' = -4x - 6$

(16) $y = 4x^3 - 9x^2 + 9x + 5$
$y' = 12x^2 - 18x + 9$

微分 導関数（16問）　版M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。

---

(1) $y = -2x^4 - 9x^3 + 7x^2 - 3x - 2$
$y' = -8x^3 - 27x^2 + 14x - 3$

(2) $y = -3x^3 - 2x^2 + 7x - 4$
$y' = -9x^2 - 4x + 7$

(3) $y = -3x^3 - 4x^2 - 8x + 8$
$y' = -9x^2 - 8x - 8$

(4) $y = -3x^4 - 5x^3 + 5x^2 - 8x + 5$
$y' = -12x^3 - 15x^2 + 10x - 8$

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

(6) $y = (3x - 1)(2x - 6)$
$y' = 12x - 20$

(7) $y = (3x - 6)(3x + 3)$
$y' = 18x - 9$

(8) $y = -5x^4 - 3x^3 + 7x^2 - 8x + 5$
$y' = -20x^3 - 9x^2 + 14x - 8$

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

(10) $y = -3x^4 - 8x^3 + 2x^2 + x - 1$
$y' = -12x^3 - 24x^2 + 4x + 1$

(11) $y = -5x^4 - x^3 + 5x^2 - x + 7$
$y' = -20x^3 - 3x^2 + 10x - 1$

(12) $y = 5x^3 + 4x^2 - 8x + 9$
$y' = 15x^2 + 8x - 8$

(13) $y = -2x^2 + 7x - 1$
$y' = -4x + 7$

(14) $y = (2x - 3)(2x - 6)$
$y' = 8x - 18$

(15) $y = -x^3 + 8x^2 - 6x + 4$
$y' = -3x^2 + 16x - 6$

(16) $y = (x + 1)(2x + 6)$
$y' = 4x + 8$

微分 導関数（16問）　版N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。

---

(1) $y = 2x^3 + 6x^2 - x - 8$
$y' = 6x^2 + 12x - 1$

(2) $y = (2x + 2)(x + 5)$
$y' = 4x + 12$

(3) $y = 5x^3 - 6x^2 + 8x + 4$
$y' = 15x^2 - 12x + 8$

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

(5) $y = (x - 5)(3x + 4)$
$y' = 6x - 11$

(6) $y = -5x^2 + 8x - 5$
$y' = -10x + 8$

(7) $y = -x^3 - 9x^2 + 8x - 6$
$y' = -3x^2 - 18x + 8$

(8) $y = -5x^3 + 2x^2 - 2x + 3$
$y' = -15x^2 + 4x - 2$

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

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

(11) $y = -2x^4 + 9x^3 + 7x^2 + 9x + 4$
$y' = -8x^3 + 27x^2 + 14x + 9$

(12) $y = (2x + 5)(x - 1)$
$y' = 4x + 3$

(13) $y = -x^3 - 4x^2 + 6x - 9$
$y' = -3x^2 - 8x + 6$

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

(15) $y = 5x^3 + 8x^2 + 7x + 8$
$y' = 15x^2 + 16x + 7$

(16) $y = -5x^3 - 2x^2 + 8x - 8$
$y' = -15x^2 - 4x + 8$

微分 導関数（16問）　版O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。

---

(1) $y = 4x^2 + 8x - 5$
$y' = 8x + 8$

(2) $y = -x^4 - 5x^3 - 9x^2 - 2x - 9$
$y' = -4x^3 - 15x^2 - 18x - 2$

(3) $y = -x^3 + 7x^2 + 9x + 8$
$y' = -3x^2 + 14x + 9$

(4) $y = x^4 - x^3 + 8x^2 + 2x - 8$
$y' = 4x^3 - 3x^2 + 16x + 2$

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

(6) $y = -3x^3 + 7x^2 - 1$
$y' = -9x^2 + 14x$

(7) $y = x^3 + 7x + 5$
$y' = 3x^2 + 7$

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

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

(10) $y = (x - 1)(3x - 2)$
$y' = 6x - 5$

(11) $y = -2x^3 - 7x^2 - 7x - 4$
$y' = -6x^2 - 14x - 7$

(12) $y = 4x^4 + 8x^3 + 8x^2 + 8x$
$y' = 16x^3 + 24x^2 + 16x + 8$

(13) $y = (x - 3)(3x + 3)$
$y' = 6x - 6$

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

(15) $y = (x - 6)(3x + 1)$
$y' = 6x - 17$

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