解答

1. 微分 1 $(fg)' = f'g + fg'$ まで

(1) $64x^7$ (2) $-6x^5$ (3) 4

(4) 0 (5) $-21x^6$ (6) $18x^8$

(7) $6x^2 - 10x + 6$ (8) $12x^3 + 6x + 2$

(9) $-5x^4 - 12x^3 + 2x$ (10) $15x^2 + 6$

(11) $4x - 2$

(12) $-6x + 22$ (13) $4x - 25$

(14) $6x^2 + 20x + 14$

(15) $3x^2 + 8x + 11$ (16) $6x^2 + 18x + 30$

2. 微分 1 $(fg)' = f'g + fg'$ まで

(1) $-12x^2$ (2) $10x$ (3) -2

(4) 0 (5) $-30x^5$ (6) $72x^8$

(7) $-30x^4 + 15x^2 - 2x$ (8) $-12x^5 - 12x^3 + 2x$

(9) $-10x^4 - 15x^2 - 12x$ (10) $-12x^2 - 3$

(11) $-6x + 5$

(12) $2x + 12$ (13) $6x - 13$

(14) $3x^2 - 18x - 8$

(15) $6x^2 - 2x - 5$ (16) $-3x^2 - 12x + 1$

3. 微分 1 $(fg)' = f'g + fg'$ まで

(1) $-32x^7$ (2) $28x^6$ (3) $4x$

(4) 0 (5) $-30x^5$ (6) $20x^3$

(7) $8x^3 + 10x + 1$ (8) $-5x^4 - 12x^3 + 8x$

(9) $-18x^2 + 8x$ (10) $-12x^3 + 3x^2 + 10x$

(11) $-6x + 11$

(12) $2x - 13$ (13) $-6x - 11$

(14) $3x^2 - 12x - 25$

(15) $6x^2 - 2x - 1$ (16) $6x^2 + 14x - 14$

4. 微分 1 $(fg)' = f'g + fg'$ まで

(1) -6 (2) $72x^8$ (3) $3x^2$

(4) $32x^7$ (5) $14x^6$ (6) $-10x^4$

(7) $20x^4 + 15x^2 - 2$ (8) $-12x^3 + 2x$

(9) $15x^2 + 10x$ (10) $18x^2 - 8x$

(11) $4x + 8$

(12) $4x - 12$ (13) $-4x + 3$

(14) $6x^2 + 24x + 20$

(15) $3x^2 + 10x - 2$ (16) $3x^2 - 8x - 15$

5. 微分 1 $(fg)' = f'g + fg'$ まで

(1) -6 (2) $-10x$ (3) $30x^9$

(4) $12x^2$ (5) $-6x^5$ (6) 0

(7) $12x^3 + 9x^2 - 5$ (8) $4x^3 + 12x$

(9) $-6x - 3$ (10) $-4x^3 - 18x^2 + 4x$

(11) $12x + 17$

(12) $2x + 8$ (13) $6x - 13$

(14) $3x^2 + 6x + 7$

(15) $-3x^2 - 2x + 12$ (16) $3x^2 - 12x - 17$

6. 微分 1 $(fg)' = f'g + fg'$ まで

(1) $10x^4$ (2) $-10x$ (3) $21x^6$

(4) $21x^2$ (5) $-60x^9$ (6) $16x^3$

(7) $-2x + 1$ (8) $-15x^2 + 4x + 1$

(9) $-8x^3 - 2x$ (10) $2x - 2$

(11) $4x - 12$

(12) $8x + 16$ (13) $4x - 9$

(14) $3x^2 - 14x - 4$

(15) $6x^2 - 6x - 35$ (16) $3x^2 + 20x + 16$

7. 微分 1 $(fg)' = f'g + fg'$ まで

(1) -2 (2) 0 (3) $16x$

(4) $6x^5$ (5) $-20x^4$ (6) $20x^3$

(7) $-4x^3 - 12x + 2$ (8) $-12x^2 - 2x - 3$

(9) $4x^3 + 12x$ (10) $-24x^3 - 2x$

(11) $4x + 16$

(12) $6x - 20$ (13) $-2x + 7$

(14) $-3x^2 + 2x + 21$

(15) $3x^2 - 10x - 21$ (16) $-3x^2 + 8x + 15$

8. 微分 1 $(fg)' = f'g + fg'$ まで

(1) 4 (2) $-48x^7$ (3) $72x^8$

(4) 0 (5) $6x^2$ (6) $50x^9$

(7) $2x + 4$ (8) $-6x + 4$

(9) $-3x^2 + 5$ (10) $-8x^3 + 6x^2 + 3$

(11) $8x + 10$

(12) $12x + 23$ (13) $6x - 17$

(14) $-3x^2 - 16x - 20$

(15) $3x^2 - 10x - 13$ (16) $6x^2 - 6x - 37$