

01 지수법칙 (1)

1 다음 식을 간단히 하시오.

- (1) $x^5 \times x^7$ (2) $3^2 \times 3^4$
- (3) $a \times a^4 \times a^6$ (4) $b^3 \times b^4 \times b^5$
- (5) $x \times y^2 \times x^3$ (6) $x^2 \times y^3 \times x^5 \times y^6$

2 다음 식을 간단히 하시오.

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

3 다음 식을 간단히 하시오.

- (1) $a \times (a^4)^5$ (2) $(x^3)^2 \times x^4$
- (3) $(x^4)^3 \times (x^2)^6$ (4) $(y^2)^3 \times (y^4)^5$
- (5) $(x^2)^4 \times (y^3)^2 \times x^5$ (6) $(a^2)^3 \times (a^5)^2 \times (b^4)^4$

02 지수법칙 (2)

4 다음 식을 간단히 하시오.

- (1) $x^5 \div x^2$ (2) $a^3 \div a^6$
- (3) $a^9 \div a^9$ (4) $x^8 \div x^4 \div x^5$

5 다음 식을 간단히 하시오.

- (1) $(x^2)^6 \div (x^2)^2$ (2) $(a^5)^2 \div (a^2)^5$
- (3) $(x^5)^3 \div x^{10}$ (4) $x^4 \times x^3 \div (x^3)^2$
- (5) $a^7 \div (a^2)^4$ (6) $(x^3)^4 \div x^6 \div (x^4)^2$

03 지수법칙 (3)

6 다음 식을 간단히 하시오.

- (1) $(xy)^3$ (2) $(ab^2)^2$
- (3) $(-3a^3)^2$ (4) $(x^2y^3)^5$
- (5) $(2a^2b^4)^3$ (6) $\left(\frac{b^4}{a^3}\right)^2$
- (7) $\left(-\frac{2x^3}{y^2}\right)^3$ (8) $\left(\frac{y^2z^3}{x}\right)^4$

04 단항식의 곱셈

7 다음 식을 계산하시오.

(1) $3a^3 \times 5b^2$

(2) $2x^2 \times 6x^4$

(3) $4x^2 \times (-3x)$

(4) $4a^3b \times 2ab^2$

(5) $-2xy \times x^2y$

(6) $a^2b \times (-3a) \times ab^5$

8 다음 식을 계산하시오.

(1) $(2x^2)^3 \times (3x)^2$

(2) $5x^2y^3 \times (-2x^3)^3$

(3) $(-a^2b)^3 \times \left(\frac{2b}{a^2}\right)^2$

(4) $(-x)^2 \times 4xy \times 3y^4$

05 단항식의 나눗셈

9 다음 식을 계산하시오.

(1) $15x^7 \div 5x^3$

(2) $-12a^3 \div 6a^5$

(3) $9x^5y^4 \div (-3x^6y)$

(4) $3x^4 \div \left(-\frac{3}{2}x\right)$

(5) $-6a^3b \div (-2ab^2)$

(6) $8x^2y \div (-2xy) \div x^2$

10 다음 식을 계산하시오.

(1) $(-2a^3)^2 \div 4a^2$

(2) $6x^2y^5 \div (-3xy^2)^2$

(3) $(2x^2y)^3 \div (2xy^3)^2$

(4) $(2a^5)^2 \div 8a^4 \div (a^4)^2$

(5) $(-3a^2b)^2 \div (ab)^3 \div \frac{b}{2a}$

06 단항식의 곱셈과 나눗셈의 혼합 계산

11 다음 식을 계산하시오.

(1) $8a^4 \div 2a \times 3a$

(2) $(3x^3)^2 \div (-6x^2) \times 4x$

(3) $6x^4y \times 3xy^3 \div 2x^5y^2$

(4) $3a^2b \div (-ab)^2 \times (-2a)$

(5) $4x^3 \times 3x^2y \div (-x^2y)^3$



정답

I-2 단항식의 계산

1 (1) x^{12} (2) 3^6 (3) a^{11} (4) b^{12} (5) x^4y^2 (6) x^7y^9

2 (1) a^6 (2) 2^{12} (3) x^{20} (4) y^9 (5) 7^{10} (6) x^{15}

3 (1) a^{21} (2) x^{10} (3) x^{24} (4) y^{26} (5) $x^{13}y^6$ (6) $a^{16}b^{16}$

4 (1) x^3 (2) $\frac{1}{a^3}$ (3) 1 (4) $\frac{1}{x}$

5 (1) x^8 (2) 1 (3) x^5 (4) x (5) $\frac{1}{a}$ (6) $\frac{1}{x^2}$

6 (1) x^3y^3 (2) a^2b^4 (3) $9a^6$ (4) $x^{10}y^{15}$ (5) $8a^6b^{12}$

(6) $\frac{b^8}{a^6}$ (7) $-\frac{8x^9}{y^5}$ (8) $\frac{y^8z^{12}}{x^4}$

7 (1) $15a^3b^2$ (2) $12x^6$ (3) $-12x^3$ (4) $8a^4b^3$ (5) $-2x^3y^2$ (6) $-3a^4b^5$

8 (1) $72x^8$ (2) $-40x^{11}y^3$ (3) $-4a^2b^5$ (4) $12x^3y^5$

9 (1) $3x^4$ (2) $-\frac{2}{a^2}$ (3) $-\frac{3y^3}{x}$ (4) $-2x^3$ (5) $\frac{3a^2}{b}$ (6) $-\frac{4}{x}$

10 (1) a^4 (2) $\frac{2}{3}y$ (3) $\frac{2x^4}{y^3}$ (4) $\frac{1}{2a^2}$ (5) $\frac{18a^2}{b^2}$

11 (1) $12a^4$ (2) $-6x^5$ (3) $9y^2$ (4) $-\frac{6a}{b}$ (5) $-\frac{12}{xy^2}$