

- 1 解答 (1) $-3a^3$ (2) $4xy$ (3) $3a$ (4) $-2x^2y$ (5) $4b^2$ (6) $-y^3$
 (7) $-24a^3b$ (8) $9x^3$ (9) $-10x^3y$ (10) a^2

$$(1) 9a^2 \times ab \div (-3b) = -\frac{9a^2 \times ab}{3b} = -3a^3$$

$$(2) 16x^2 \div (-4xy) \times (-y^2) = \frac{16x^2 \times y^2}{4xy} = 4xy$$

$$(3) -2a^2 \times 6b \div (-4ab) = \frac{2a^2 \times 6b}{4ab} = 3a$$

$$(4) 8xy^2 \div (-12y) \times 3x = -\frac{8xy^2 \times 3x}{12y} = -2x^2y$$

$$(5) 12ab \times (-2ab^2) \div (-6a^2b) = \frac{12ab \times 2ab^2}{6a^2b} = 4b^2$$

$$(6) -5xy^3 \div 10x^3y^2 \times 2x^2y^2 = -\frac{5xy^3 \times 2x^2y^2}{10x^3y^2} = -y^3$$

$$(7) 3ab^2 \times 4a^2b \div \left(-\frac{1}{2}b^2\right) = 3ab^2 \times 4a^2b \times \left(-\frac{2}{b^2}\right)$$

$$= -\frac{3ab^2 \times 4a^2b \times 2}{b^2}$$

$$= -24a^3b$$

$$(8) x^2 \times (-3xy)^2 \div xy^2 = x^2 \times 9x^2y^2 \div xy^2$$

$$= \frac{x^2 \times 9x^2y^2}{xy^2}$$

$$= 9x^3$$

$$(9) (-4x)^2 \times 5x^4y \div (-2x)^3 = 16x^2 \times 5x^4y \div (-8x^3)$$

$$= -\frac{16x^2 \times 5x^4y}{8x^3}$$

$$= -10x^3y$$

$$(10) \frac{27}{2}ab \div (-3b)^2 \times \frac{2}{3}ab = \frac{27ab}{2} \div 9b^2 \times \frac{2ab}{3}$$

$$= \frac{27ab}{2} \times \frac{1}{9b^2} \times \frac{2ab}{3}$$

$$= \frac{27ab \times 1 \times 2ab}{2 \times 9b^2 \times 3}$$

$$= a^2$$

- 2 解答 (1) $36a^6b^6x^6$ (2) $-x$ (3) $-6ab$ (4) $9x^6y$ (5) $-\frac{1}{2}a^6b^5$
 (6) x^2y^6

$$(1) (-2ab^2x^3)^2 \times (-3a^2b)^2 = 4a^2b^4x^6 \times 9a^4b^2$$

$$= 36a^6b^6x^6$$

$$(2) (-4x^5y^4z^2) \div (2x^2y^2z)^2 = -4x^5y^4z^2 \div 4x^4y^4z^2$$

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

$$= -x$$

$$(3) 6a^3b \times (-3ab^2)^2 \div (-9a^4b^4) = 6a^3b \times 9a^2b^4 \div (-9a^4b^4)$$

$$= -\frac{6a^3b \times 9a^2b^4}{9a^4b^4}$$

$$= -6ab$$

$$(4) -2xy \times (-3x^2y)^3 \div 6xy^3 = -2xy \times (-27x^6y^3) \div 6xy^3$$

$$= \frac{2xy \times 27x^6y^3}{6xy^3}$$

$$= 9x^6y$$

$$(5) (a^3b^2)^3 \div (2a^4b)^2 \times (-2a^5b) = a^9b^6 \div 4a^8b^2 \times (-2a^5b)$$

$$= -\frac{a^9b^6 \times 2a^5b}{4a^8b^2}$$

$$= -\frac{1}{2}a^6b^5$$

$$(6) (-4xy^3z)^2 \times x^2yz \div 16x^2yz^3 = 16x^2y^6z^2 \times x^2yz \div 16x^2yz^3$$

$$= \frac{16x^2y^6z^2 \times x^2yz}{16x^2yz^3}$$

$$= x^2y^6$$