

# 単項式の除法の計算

単項式÷単項式の計算順序!!

- ① 答えの符号を決める    ② 分数式に直す  $\bigcirc \div \triangle = \frac{\bigcirc}{\triangle}$     ③ 約分

ポイント

指数を具体的に表す  $a^2 = a \ a$      $b^2 = b \ b \ b$

- ①  $-4a \div 2a$     ②  $18ab \div (-12dc)$     ③  $(-18a^2b) \div (-2ab^2)$     ④  $16xy^4 \div (-2x^3y^2)$

$$\begin{aligned} \text{①} &= \frac{2\cancel{4}a}{1\cancel{2}a} = -2 \\ \text{②} &= \frac{3\cancel{18}ab}{2\cancel{12}bc} = -\frac{3a}{2c} \\ \text{③} &= +\frac{9\cancel{18}a^2b}{1\cancel{2}abb} = +\frac{9a}{b} \\ \text{④} &= -\frac{8\cancel{16}xy^4}{1\cancel{2}x^3xy} = -\frac{8y^2}{x^2} \end{aligned}$$

⑤  $-16x^2y^3 \div \frac{4}{3}x^3y^2$

① 整数は分数に  
② 分子をまとめる  
③ 答えの符号を決める  
 $\div \frac{\triangle}{\bigcirc} \rightarrow \times \frac{\bigcirc}{\triangle}$

$$\begin{aligned} &= -\frac{16x^2y^3}{\boxed{1}} \div \frac{4x^3y^2}{3} \\ &= -\frac{4\cancel{16}xy^3 \times 3}{1 \times \cancel{4}x^3xy} \\ &= -\frac{12y}{x} \end{aligned}$$

⑥  $\frac{9}{10}ab^3 \div \frac{6}{5}a^3b^2$

① 分子をまとめる  
② 答えの符号を決める  
 $\div \frac{\triangle}{\bigcirc} \rightarrow \times \frac{\bigcirc}{\triangle}$

$$\begin{aligned} &= \frac{9ab^3}{10} \div \frac{6a^3b^2}{5} \\ &= +\frac{3\cancel{9}abb^3 \times \cancel{5}^1}{10 \times \cancel{6}a^3bb^2} \\ &= +\frac{3b}{4a^2} \end{aligned}$$

# 単項式の乗除混合の計算

⑦  $-8a^2b \div (-12a^3b^4) \times 2a^2b^2$

整数  $\bigcirc \rightarrow \frac{\bigcirc}{1}$   
 $\div \frac{\triangle}{\bigcirc} \rightarrow \times \frac{\bigcirc}{\triangle}$   
逆数

$$\begin{aligned} &= -\frac{8a^2b}{\boxed{1}} \div \left(-\frac{12a^3b^4}{\boxed{1}}\right) \times \frac{2a^2b^2}{\boxed{1}} \\ &= +\frac{2\cancel{8}aab \times 1 \times 2\cancel{a}abb}{1 \times \cancel{12}a^3bb^4 \times 1} \\ &= +\frac{4a}{3b} \end{aligned}$$

⑧  $(3xy)^2 \div \frac{9}{4}x^2y^5 \times 2x^2y^2$

( ) 指数だけを計算する!  
整数  $\bigcirc \rightarrow \frac{\bigcirc}{1}$   
 $\div \frac{\triangle}{\bigcirc} \rightarrow \times \frac{\bigcirc}{\triangle}$   
逆数

$$\begin{aligned} &= \boxed{9x^2y^2} \div \frac{9}{4}x^2y^5 \times 2x^2y^2 \\ &= +\frac{9x^2y^2}{\boxed{1}} \div \frac{9x^2y^5}{4} \times \frac{2x^2y^2}{\boxed{1}} \\ &= +\frac{1\cancel{9}xyy \times 4 \times 2\cancel{x}xy}{1 \times \cancel{9}xyyy \times 1} \\ &= +\frac{8x^2}{y} \end{aligned}$$