

多項式の計算(4)

【1】次の多項式の項と次数を答えなさい。

$$(1) 2x+7y \quad (2) 3xy-x+1 \quad (3) 2a^2+3ab+2b-5 \quad (4) x^2-6x^2y+3y$$

答え(1) 項	$2x, 7y$	次数	1	(2) 項	$3xy, -x, 1$	次数	2
(3) 項	$2a^2, 3ab, 2b, -5$	次数	2	(4) 項	$x^2, -6x^2y, 3y$	次数	3

【2】次の計算をしなさい。

$$\begin{aligned} (1) (x+5y)+(2x-7y) \\ &= x+5y+2x-7y \\ &= x+2x+5y-7y \\ &= 3x-2y \end{aligned}$$

$$\begin{aligned} (3) 3(4x-3y) \\ &= 3 \times 4x + 3 \times (-3y) \\ &= 12x-9y \end{aligned}$$

$$\begin{aligned} (5) 2(2a+3b)+3(a-4b) \\ &= 4a+6b+3a-12b \\ &= 4a+3a+6b-12b \\ &= 7a-6b \end{aligned}$$

$$\begin{aligned} (2) (2a-b)-(6a-5b) \\ &= 2a-b-6a+5b \\ &= 2a-6a-b+5b \\ &= -4a+4b \end{aligned}$$

$$\begin{aligned} (4) -5(x-4y) \\ &= (-5) \times x + (-5) \times (-4y) \\ &= -5x+20y \end{aligned}$$

$$\begin{aligned} (6) 4(3x-2y)-7(2x-y) \\ &= 12x-8y-14x+7y \\ &= 12x-14x-8y+7y \\ &= -2x-y \end{aligned}$$

【3】次の計算をしなさい。

$$\begin{aligned} (1) (16x-12y) \div 4 \\ &= \frac{16x}{4} - \frac{12y}{4} \\ &= 4x-3y \end{aligned}$$

$$\begin{aligned} (3) 3x-y+\frac{x+4y}{3} \\ &= \frac{3(3x-y)+x+4y}{3} \\ &= \frac{9x-3y+x+4y}{3} \\ &= \frac{9x+x-3y+4y}{3} \\ &= \frac{10x+y}{3} \end{aligned}$$

$$\begin{aligned} (2) (14x-21y) \div (-7) \\ &= \frac{14x}{-7} - \frac{21y}{-7} \\ &= -2x+3y \end{aligned}$$

$$\begin{aligned} (4) \frac{2a+b}{2} - \frac{3a-b}{5} \\ &= \frac{5(2a+b)-2(3a-b)}{10} \\ &= \frac{10a+5b-6a+2b}{10} \\ &= \frac{10a-6a+5b+2b}{10} \\ &= \frac{4a+7b}{10} \end{aligned}$$