

次の式を完成させなさい。

$$15 \times 3$$

$$= (10 + 5) \times 3$$

$$= 10 \times 3 + 5 \times 3$$

$$3 \times 15$$

$$= 3 \times (10 + 5)$$

$$= 3 \times 10 + 3 \times 5$$

$$3 \times 7$$

$$= 3 \times (10 - 3)$$

$$= 3 \times 10 - 3 \times 5$$

$$3(a + b)$$

$$= 3a + 3b$$

$$3(a - b)$$

$$= 3a - 3b$$

$$3(x - y)$$

$$= 3x - 3y$$

$$a(x - y)$$

$$= ax - ay$$

数字や文字の間に

**+** または **-**  
の記号を入れなさい。

$$20 - (10 + 3)$$

$$= 20 - 10 - 3$$

$$20 - 10 - 2$$

$$= 20 - (10 + 2)$$

$$20 - 10 + 3$$

$$= 20 - (10 - 3)$$

$$20 - (10 - 2)$$

$$= 20 - 10 + 2$$

$$a - (b + c)$$

$$= a - b - c$$

$$x - y - z$$

$$= x - (y + z)$$

$$a - b + c$$

$$= a - (b - c)$$

$$x - (y - z)$$

$$= x - y + z$$

a

次の計算をなさい。

$$\begin{aligned} a+2(b-c) \\ =a+2b-2c \end{aligned}$$

$$\begin{aligned} a-2(b+c) \\ =a-2b-2c \end{aligned}$$

$$\begin{aligned} a-2(b-c) \\ =a-2b+2c \end{aligned}$$

$$\begin{aligned} x-3(y-z) \\ =x-3y+3z \end{aligned}$$

$$\begin{aligned} a-2(3b+c) \\ =a-6b-2c \end{aligned}$$

$$\begin{aligned} x-3(y-2z) \\ =x-3y+6z \end{aligned}$$

$$\begin{aligned} a-2(3b+4c) \\ =a-6b-8c \end{aligned}$$

$$\begin{aligned} x-3(2y-3x) \\ =x-6y+9x \\ =10x-6y \end{aligned}$$

一つのミスも無いように計算をなさい。

$$\begin{aligned} 5(a+b)+3(a+b) \\ =5a+5b+3a+3b \\ =8a+8b \end{aligned}$$

$$\begin{aligned} 5(a+b)-3(a+b) \\ =5a+5b-3a-3b \\ =2a+2b \end{aligned}$$

$$\begin{aligned} 5(a+b)+3(a-b) \\ =5a+5b+3a-3b \\ =8a+2b \end{aligned}$$

$$\begin{aligned} 5(a-b)-3(a+b) \\ =5a-5b-3a-3b \\ =2a-8b \end{aligned}$$

$$\begin{aligned} 5(a-b)-3(a-b) \\ =5a-5b-3a+3b \\ =2a-2b \end{aligned}$$

$$\begin{aligned} & 3(a+b)+5(a+b) \\ &= 3a+3b+5a+5b \\ &= 8a+8b \end{aligned}$$

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

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

$$\begin{aligned} & -3(a+b)-5(a+b) \\ &= -3a-3b-5a-5b \\ &= -8a-8b \end{aligned}$$

$$\begin{aligned} & 3(a+b)+5(a-b) \\ &= 3a+3b+5a-5b \\ &= 8a-2b \end{aligned}$$

$$\begin{aligned} & -3(a+b)+5(a-b) \\ &= -3a-3b+5a-5b \\ &= 2a-8b \end{aligned}$$

$$\begin{aligned} & 3(a-b)-5(a+b) \\ &= 3a-3b-5a-5b \\ &= -2a-8b \end{aligned}$$

$$\begin{aligned} & -3(a-b)-5(a+b) \\ &= -3a+3b-5a-5b \\ &= -8a-2b \end{aligned}$$

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

$$\begin{aligned} & -3(a-b)-5(a-b) \\ &= -3a+3b-5a+5b \\ &= -8a+8b \end{aligned}$$

一つのミスも無いように計算しなさい。

$$\begin{array}{r} x + y \\ +) x + y \\ \hline 2x + 2y \end{array}$$

$$\begin{array}{r} 3x - y \\ -) 2x + y \\ \hline x - 2y \end{array}$$

$$\begin{array}{r} x - y \\ +) x - y \\ \hline 2x - 2y \end{array}$$

$$\begin{array}{r} 3x + 3y \\ +) 2x - 2y \\ \hline 5x + y \end{array}$$

$$\begin{array}{r} 3x + 2y \\ +) x + y \\ \hline 4x + 2y \end{array}$$

$$\begin{array}{r} 2x + 2y \\ +) 3x - 3y \\ \hline 5x - y \end{array}$$

$$\begin{array}{r} 3x + y \\ +) x - y \\ \hline 4x \end{array}$$

$$\begin{array}{r} 3x - 3y \\ +) 2x - 2y \\ \hline 5x - 5y \end{array}$$

$$\begin{array}{r} x + y \\ -) x + y \\ \hline 0 \end{array}$$

$$\begin{array}{r} 2x - 2y \\ +) 3x - 3y \\ \hline 5x - 5y \end{array}$$

$$\begin{array}{r} x - y \\ -) x - y \\ \hline 0 \end{array}$$

$$\begin{array}{r} 3x + 3y \\ -) 2x + 2y \\ \hline x + y \end{array}$$

$$\begin{array}{r} 5x - 2y \\ -) 3x + 3y \\ \hline 2x - 5y \end{array}$$

次の単項式の計算を  
文字式の約束に従って示しなさい。

$$1 \div 2 = \frac{1}{2}$$

$$1 \div 3 = \frac{1}{3}$$

$$2 \div 3 = \frac{2}{3}$$

$$a \div 3 = \frac{a}{3}$$

$$a \div b = \frac{a}{b}$$

$$a \times a = a^2$$

$$a \times a \times a = a^3$$

$$a^2 \times a^3 = a^{2+3} = a^5$$

$$3a \times a = 3a^2$$

$$2a \times 3a = 6a^2$$

$$2a^2 \times 3a = 6a^3$$

$$6a \div 3 = 2a$$

$$6a^2 \div 3a = 2a$$

$$a^5 \div a^2 = a^3$$

$$a \div a = 1$$

$$6a^5 \div 3a^2 = 2a^3$$

$$a \div a^2 = \frac{1}{a}$$

$$2ab \div 3 = \frac{2ab}{3}$$

$$2a \div 3b = \frac{2a}{3b}$$

$$a \times b = ab$$

$$a \times a \times b = a^2b$$

$$3ab \times ab = 3a^2b^2$$

$$2ab \times 3ab = 6a^2b^2$$

$$2a^2b \times 3ab = 6a^3b^2$$

$$6ab \div 3b = 2a$$

$$3a^2b \times ab^2 = 3a^3b^3$$

$$6a^2 \div 3ab = \frac{2a}{b}$$

$$2ab \div 3ab^2 = \frac{2}{3b}$$

$$a^5b \div a^2 = a^3b$$

$$2a^2b \times 3ab^2 = 6a^3b^3$$

$$a \div ab = \frac{1}{b}$$

$$6ab^2 \div 3b^2 = 2a$$

$$6a^5b \div 3a^2 = 2a^3b$$

$$6a^2b \div 3ab^2 = \frac{2a}{b}$$

$$ab \div a^2 = \frac{b}{a}$$

$$a^5b^2 \div a^2 = a^3b^2$$

$$2ab \div 3 = \frac{2ab}{3}$$

$$ab \div ab^2 = \frac{1}{b}$$

$$2a^2 \div 3ab = \frac{2a}{3b}$$

$$6a^5b \div 3a^2 = 2a^3b$$

$$a^2 \times b = a^2b$$

$$ab^2 \div a^2b = \frac{b}{a}$$

$$a \times a \times b = a^2b$$

$$a^8 \div a^3 = a^5$$