

① ふつう

$$\begin{array}{r} 12 \\ \times 3 \\ \hline 36 \end{array}$$

このように計算します。

② 左の計算を分けて示すと

$$\begin{array}{r} 12 \\ \times 3 \\ \hline 6 \\ 30 \\ \hline 36 \end{array}$$

③ さらに分けて示すと

$$\begin{array}{r} 10 + 2 \\ \times 3 \\ \hline 30 + 6 \\ = 36 \end{array}$$

上と同じように示せ。

$$\begin{array}{r} 13 \\ \times 2 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 13 \\ \times 2 \\ \hline 6 \\ 20 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 10 + 3 \\ \times 2 \\ \hline 20 + 6 \\ = 26 \end{array}$$

上のことをヨコ書きにすると下のようになります。

$$\begin{aligned} & (10 + 2) \times 3 \\ = & 10 \times 3 + 2 \times 3 \end{aligned}$$

$$A \times B = B \times A \text{ ですから}$$

$$\begin{aligned} & 3 \times (10 + 2) \\ = & 3 \times 10 + 3 \times 2 \end{aligned}$$

$$\begin{aligned} & (10 + 3) \times 2 \\ = & 10 \times 2 + 3 \times 2 \end{aligned}$$

$$\begin{aligned} & 2 \times (10 + 3) \\ = & 2 \times 10 + 2 \times 3 \end{aligned}$$

別の数字で同様のことを別紙に示しなさい。

① ふつう

$$\begin{array}{r} 12 \\ \times 3 \\ \hline \square \square \\ \square \square \\ \hline \square \square \end{array}$$

このように計算します。

② 左の計算を分けて示すと

$$\begin{array}{r} 12 \\ \times 3 \\ \hline \square \square \\ \square \square \\ \hline \square \square \end{array}$$

③ さらに分けて示すと

$$\begin{array}{r} 10+2 \\ \times 3 \\ \hline \square + \square \\ = \square \end{array}$$

上と同じように示せ。

$$\begin{array}{r} 13 \\ \times 2 \\ \hline \square \square \\ \square \square \\ \hline \square \square \end{array}$$

$$\begin{array}{r} 13 \\ \times 2 \\ \hline \square \square \\ \square \square \\ \hline \square \square \end{array}$$

$$\begin{array}{r} 10+3 \\ \times 2 \\ \hline \square + \square \\ = \square \end{array}$$

上のことをヨコ書きにすると下のようになります。

$$(10+2) \times 3 = \square \times \square + \square \times \square$$

$$(10+3) \times 2 = \square \times \square + \square \times \square$$

$$A \times B = B \times A \text{ ですから}$$

$$3 \times (10+2) = \square \times \square + \square \times \square$$

$$2 \times (10+3) = \square \times \square + \square \times \square$$

別の数字で同様のことを別紙に示しなさい。

$$\text{百} + \text{百} = 2\text{百}$$

$$2\text{百} + \text{百} = 3\text{百}$$

$$\text{千} + \text{千} = 2\text{千}$$

$$2\text{千} + \text{千} = 3\text{千}$$

と表すように

$$a + a = 2a$$

$$2a + a = 3a$$

$$3a + 2a = 5a$$

$$a + a + a = 3a$$

$$a \times 3 = 3a$$

$$3 \times a = 3a$$

と表します。

次の文を覚えて言いなさい。

$[3 \times 3]$ を

$[3$ の2乗 $]$ と言い、

$[3^2]$ と表します。

上と同じように示せ。

$$5 \times 5 = 5^2$$

$$10 \times 10 = 10^2$$

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

$$x \times x = x^2$$

$$x + x + x = 3x$$

$$x \times 3 = 3x$$

$$3 \times x = 3x$$

$$\text{百} + \text{百} =$$

$$2\text{百} + \text{百} =$$

$$\text{千} + \text{千} =$$

$$2\text{千} + \text{千} =$$

と表すように

$$a + a =$$

$$2a + a =$$

$$3a + 2a =$$

$$a + a + a =$$

$$a \times 3 =$$

$$3 \times a =$$

と表します。

次の文を覚えて言いなさい。

$[3 \times 3]$ を

$[3 \text{ の } 2 \text{ 乗}]$ と言い、

$[3^2]$ と表します。

上と同じように示せ。

$$5 \times 5 =$$

$$10 \times 10 =$$

$$a \times a =$$

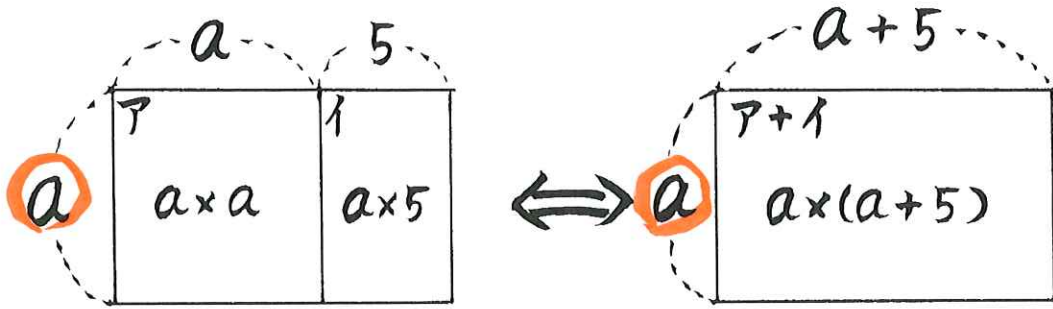
$$x \times x =$$

$$x + x + x =$$

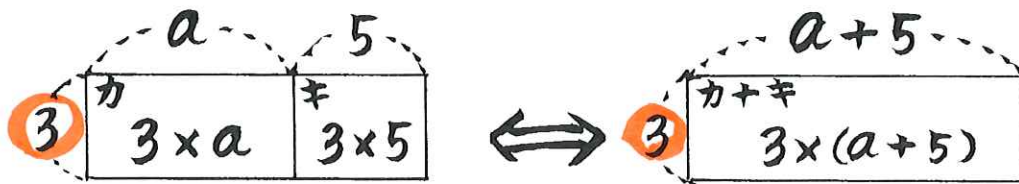
$$x \times 3 =$$

$$3 \times x =$$

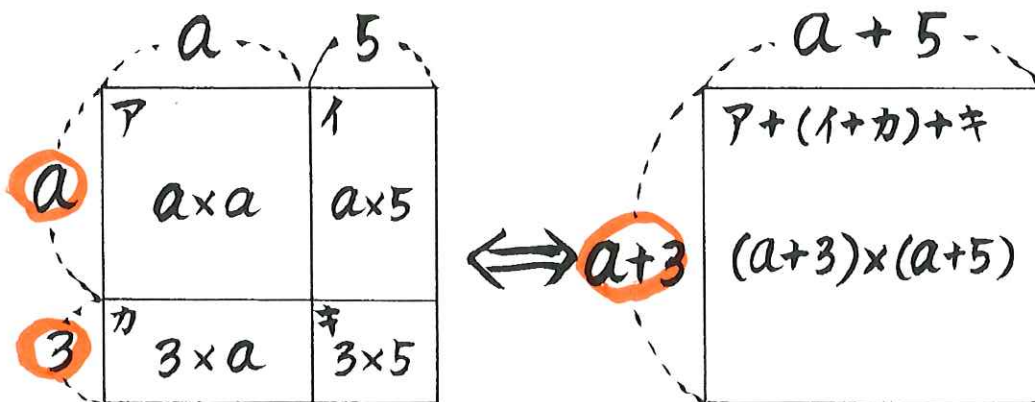
次の図と式を説明しなさい。



$$a \times a + a \times 5 \iff a \times (a+5)$$

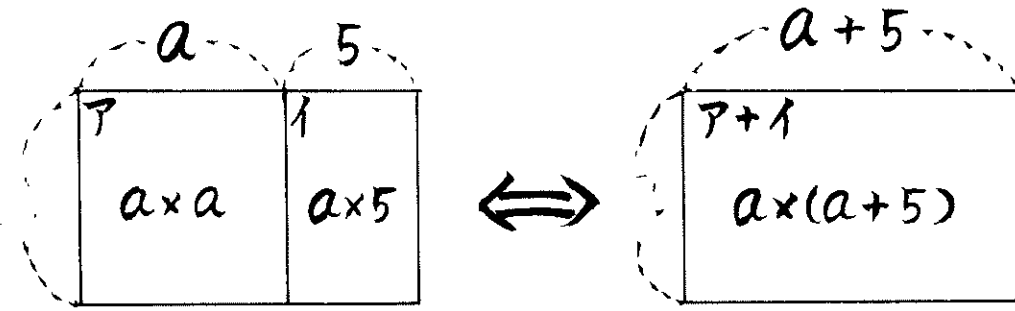


$$3 \times a + 3 \times 5 \iff 3 \times (a+5)$$

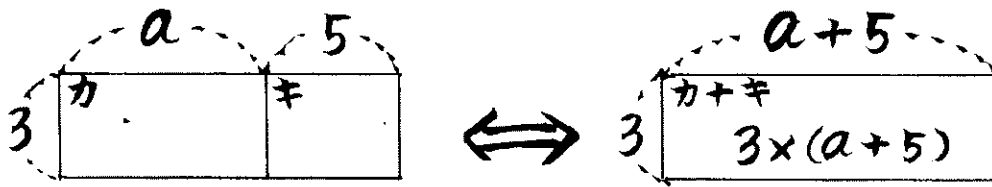


$$\begin{array}{l}
 a \times a + a \times 5 \\
 + 3 \times a + 3 \times 5
 \end{array}
 \iff (a+3) \times (a+5)$$

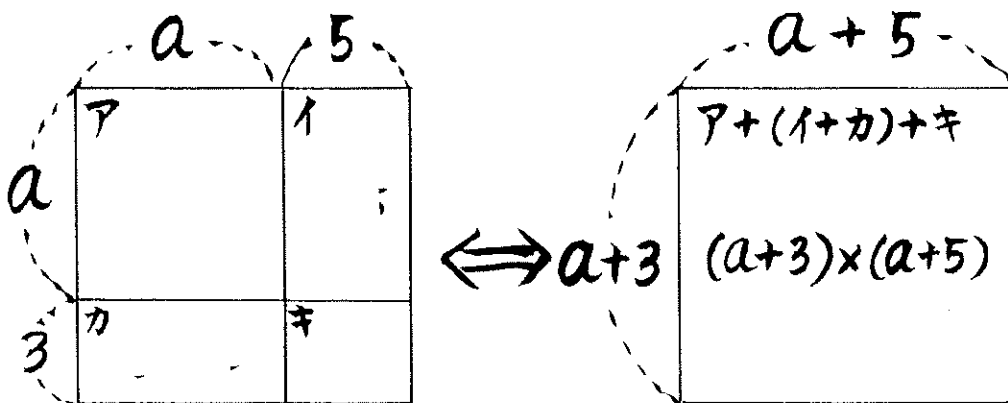
次の図と式を説明しなさい。



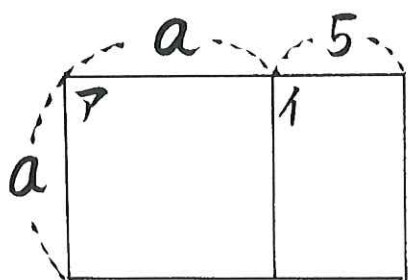
$$a \times a + a \times 5 \Leftrightarrow a \times (a + 5)$$



$$3 \times a + 3 \times 5 \Leftrightarrow 3 \times (a + 5)$$

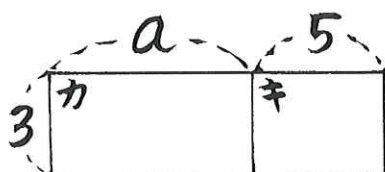


$$a \times a + a \times 5 + 3 \times a + 3 \times 5 \Leftrightarrow (a + 3) \times (a + 5)$$



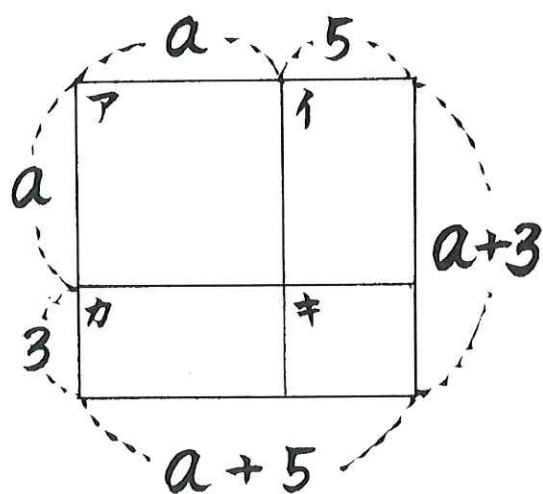
$$a \times (a+5)$$

$$= \boxed{a^2} + \boxed{5a}$$



$$3 \times (a+5)$$

$$= \boxed{3a} + \boxed{15}$$



上の図と左の図から

$$(a+3) \times (a+5)$$

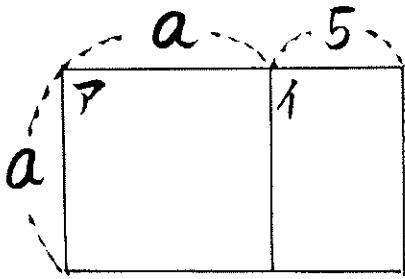
$$= a \times (a+5) + 3 \times (a+5)$$

$$= \boxed{a^2} + \boxed{5a} + \boxed{3a} + \boxed{15}$$

$$= a^2 + \boxed{8a} + 15$$

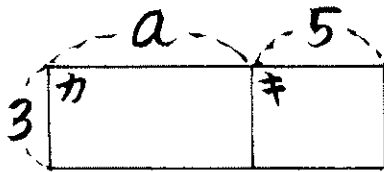
納得するまでくりかえし読み

覚えて言いなさい。



$$a \times (a+5)$$

$$= \boxed{\text{ア}} + \boxed{\text{イ}}$$

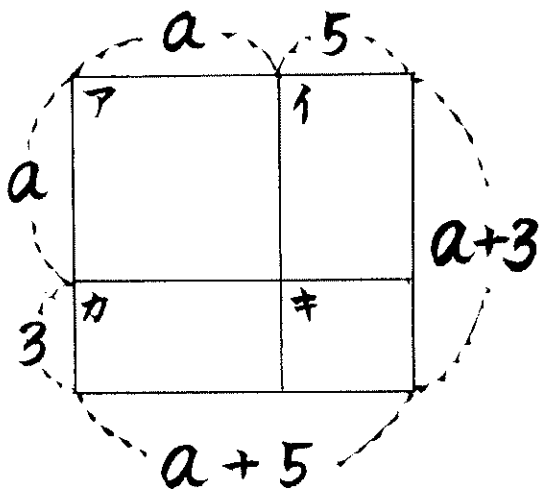


$$3 \times (a+5)$$

$$= \boxed{\text{カ}} + \boxed{\text{キ}}$$



上の図と左の図から



$$(a+3) \times (a+5)$$

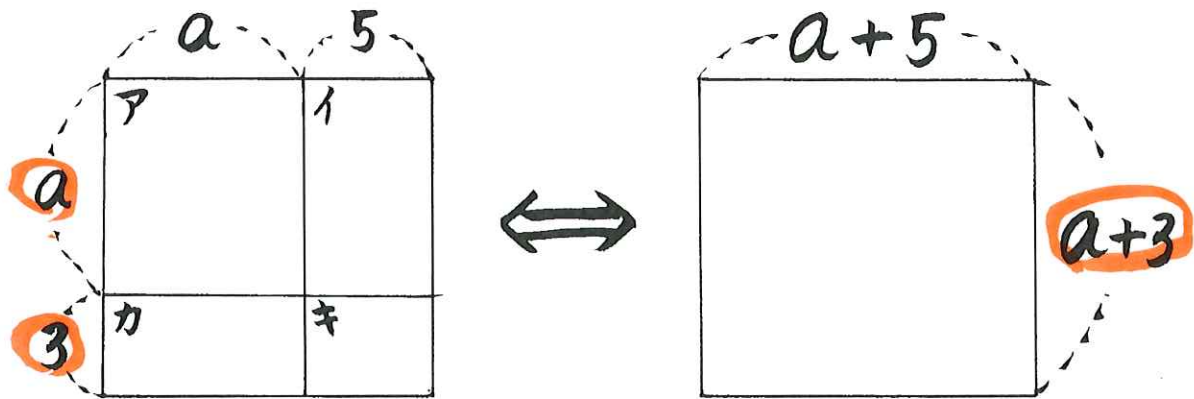
$$= a \times (a+5) + 3 \times (a+5)$$

$$= \boxed{\text{ア}} + \boxed{\text{イ}} + \boxed{\text{カ}} + \boxed{\text{キ}}$$

$$= a^2 + \boxed{\text{イ+カ}} + 15$$

納得するまでくりかえし読み

覚えて言いなさい。



$$(a+3) \times (a+5)$$

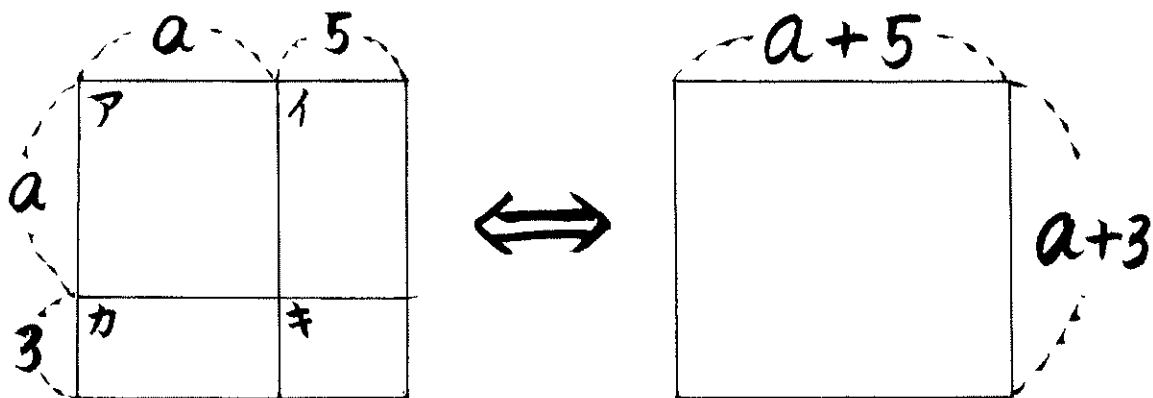
Diagrammatic multiplication of $(a+3) \times (a+5)$ showing partial products: $a \times a$, $a \times 5$, $3 \times a$, and 3×5 .

$$* = \text{ア} + \text{イ} + \text{カ} + \text{キ}$$

$$= a^2 + 5a + 3a + 15$$

$$= a^2 + 8a + 15$$

上の図と式を説明せよ。

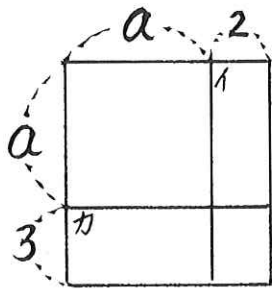


$$(a+3) \times (a+5)$$

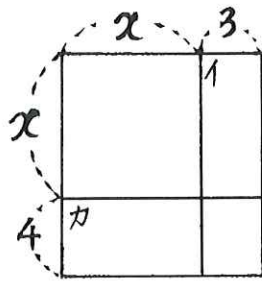
※

$$\begin{aligned} & \text{※} \\ & = \text{ア} + \text{イ} + \text{カ} + \text{キ} \\ & = \square + \square + \square + \square \\ & = a^2 + \square + 15 \end{aligned}$$

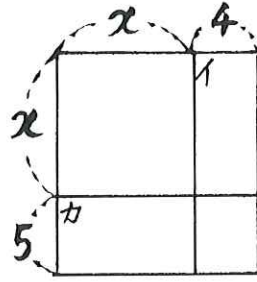
上の図と式を説明せよ。



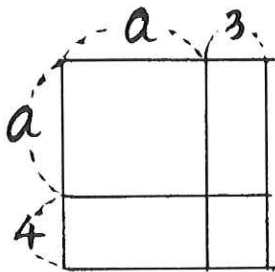
$$a^2 + \boxed{5}a + \boxed{6}$$



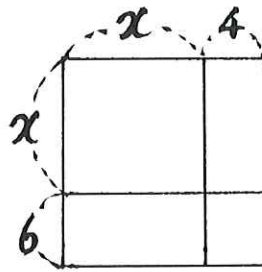
$$x^2 + \boxed{7}x + \boxed{12}$$



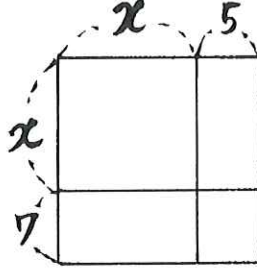
$$x^2 + \boxed{9}x + \boxed{20}$$



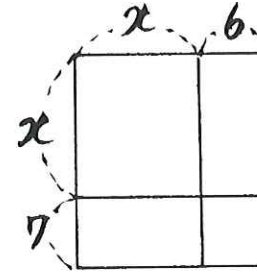
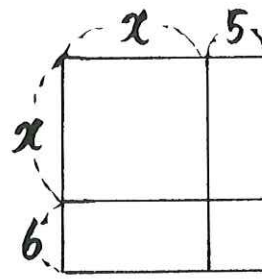
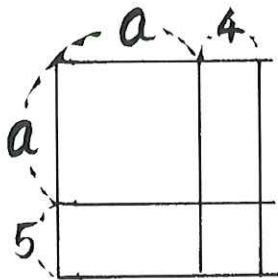
$$a^2 + \boxed{7}a + \boxed{12}$$



$$x^2 + \boxed{10}x + \boxed{24}$$



$$x^2 + \boxed{12}x + \boxed{35}$$



$$(a+5)(a+4)$$

$$(x+6)(x+5)$$

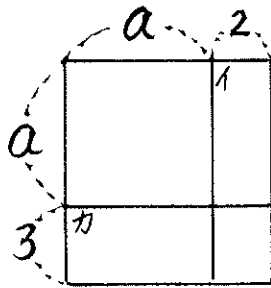
$$(x+7)(x+6)$$

$$= \boxed{a^2} + \boxed{4a} + \boxed{5a} + \boxed{20}$$

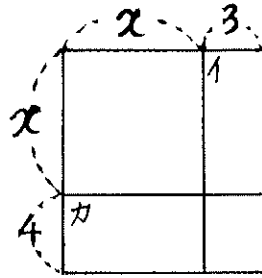
$$= a^2 + 9a + 20$$

$$= x^2 + 5x + 6x + 30 = x^2 + 11x + 30$$

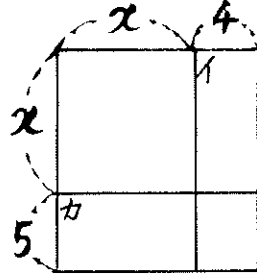
$$= x^2 + 13x + 42$$



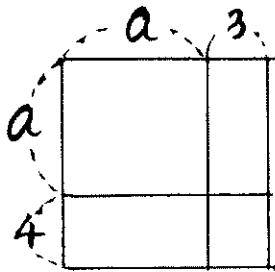
$$a^2 + \square a + \square$$



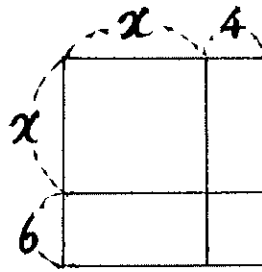
$$x^2 + \square x + \square$$



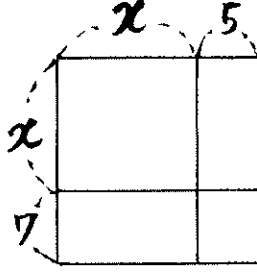
$$x^2 + \square x + \square$$



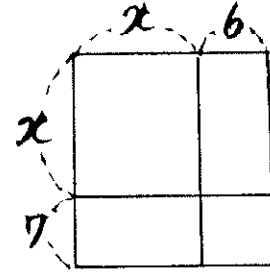
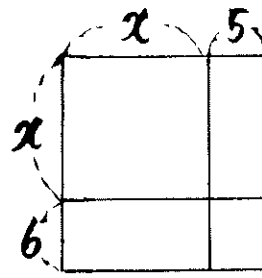
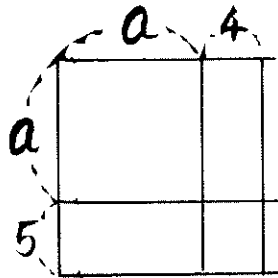
$$a^2 + \square a + \square$$



$$x^2 + \square x + \square$$



$$x^2 + \square x + \square$$



$$(a+5)(a+4)$$

$$= \square + \square + \square + \square$$

=

$$(x+6)(x+5)$$

=

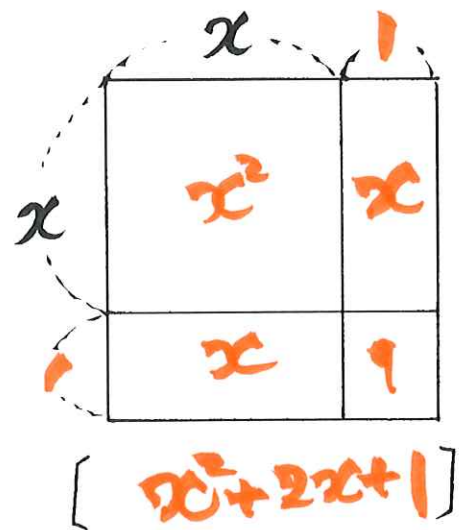
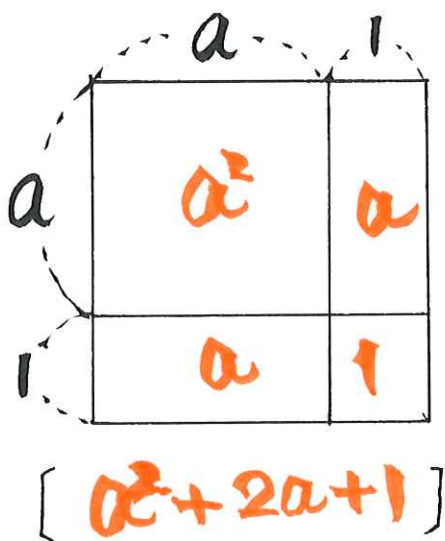
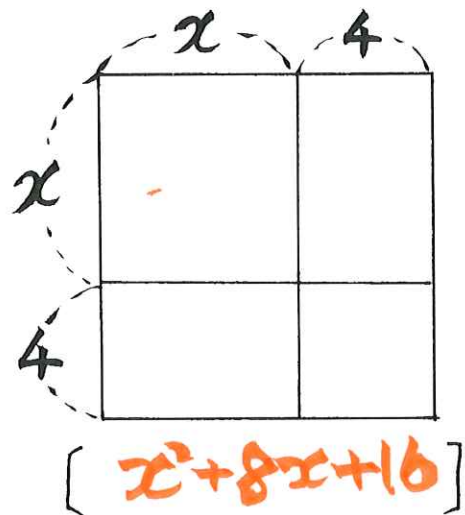
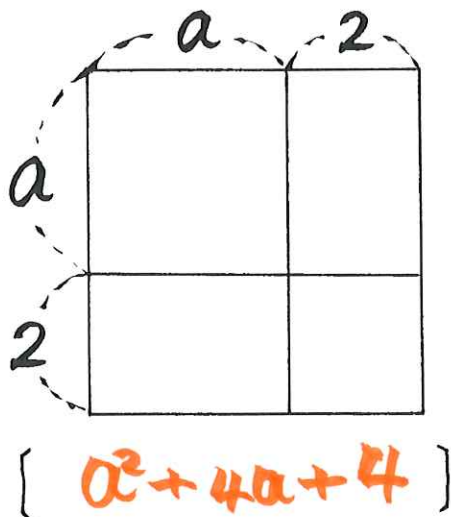
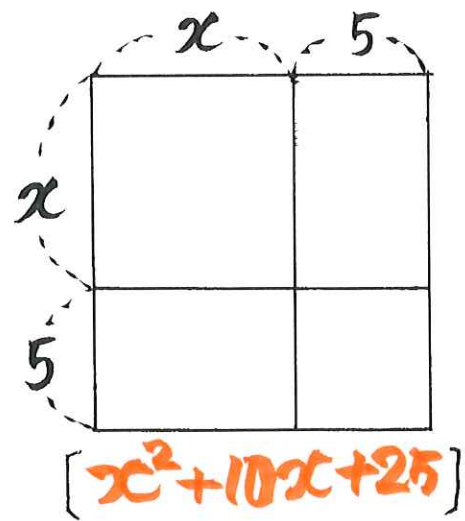
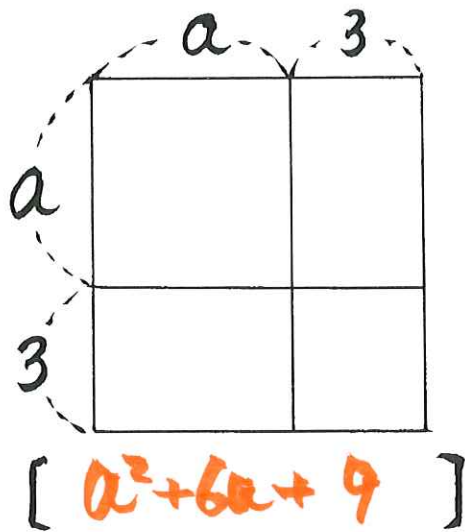
=

$$(x+7)(x+6)$$

=

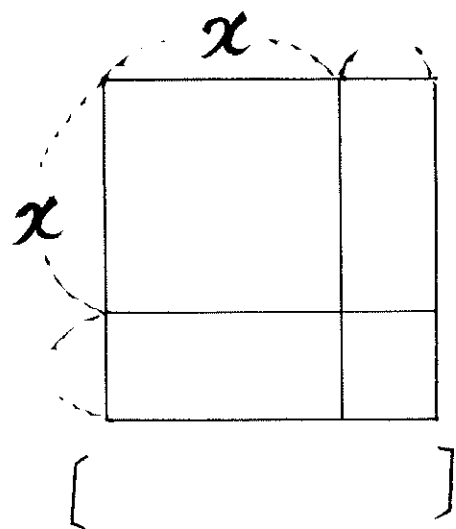
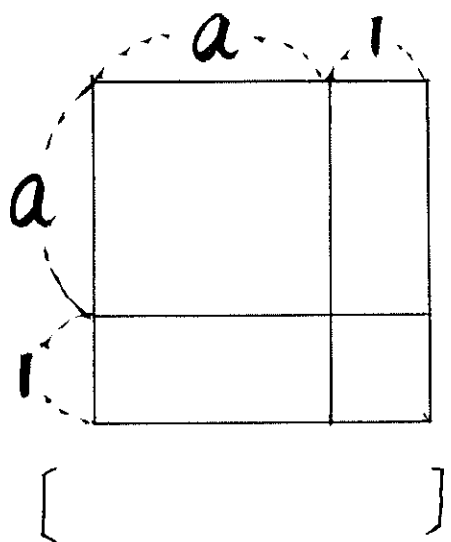
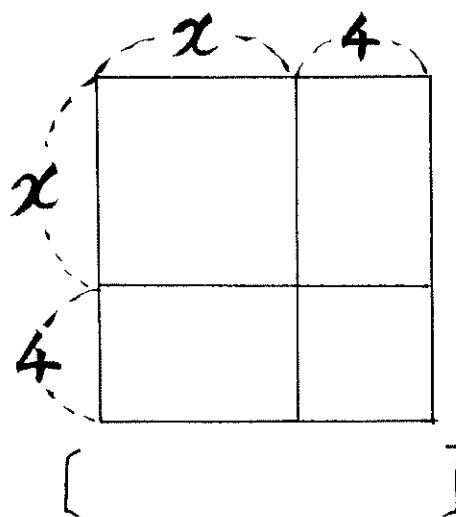
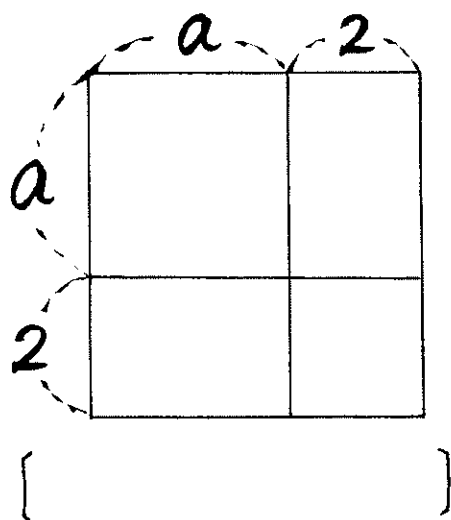
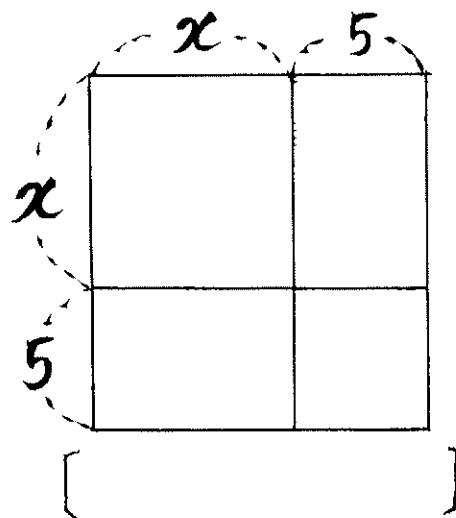
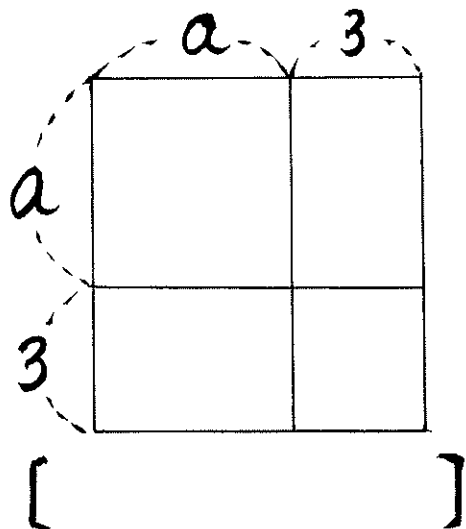
=

それぞれの正方形・長方形の大きさを示しなさい。下の〔 〕の中に合計を示せ。



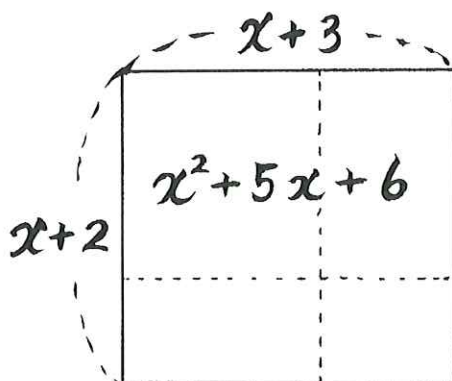
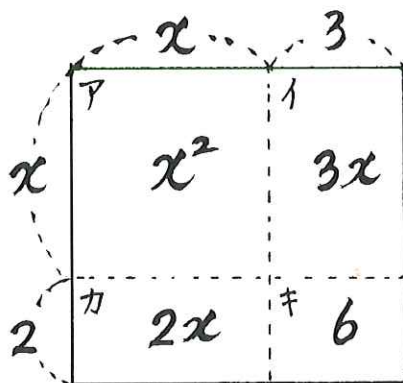
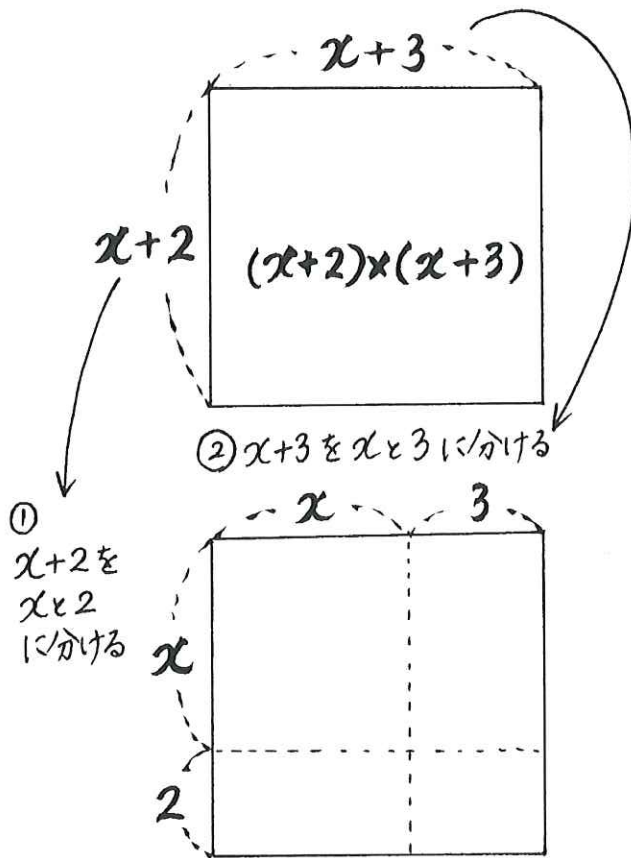
何か新しく規則性は見つかりましたか。

それぞれの正方形・長方形の大きさを示しなさい。下の〔 〕の中に合計を示せ。



何か新しく規則性は見つかりましたか。

次の説明を読み、理解できたら、先生に説明しなさい。



左の長方形の大きさは

$(x+2) \times (x+3)$

として表せる。

$x+2$ を x と 2 に

$x+3$ を x と 3 に

分けると

左の図のようになる。

ア、イ、カ、キ

それぞれの大きさを求め

$(x^2, 3x, 2x, 6)$

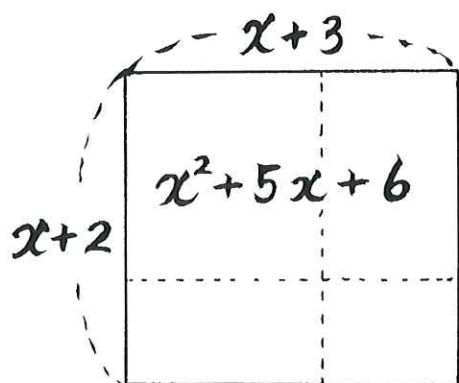
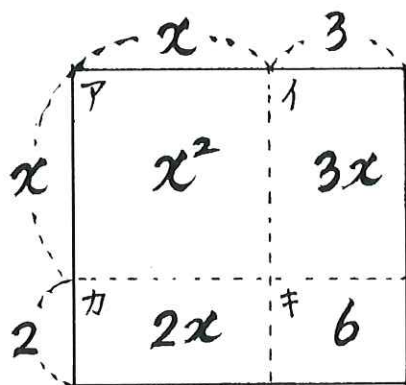
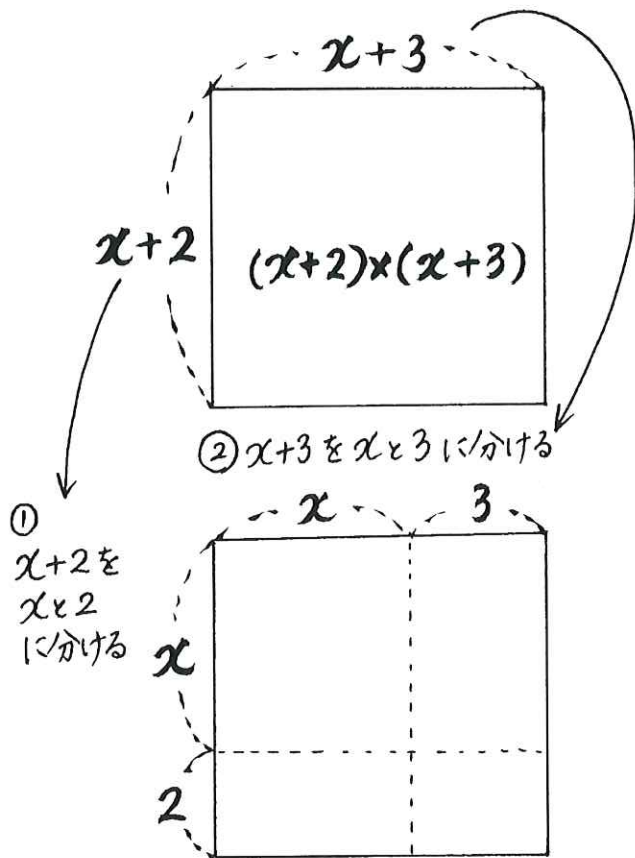
イとカをひとつにすると

$x^2 + 5x + 6$

と、 x に関する

2次式で表せる

次の説明を読み、理解できたら、先生に説明しなさい。



左の長方形の大きさは



として表せる。

$x+2$ を x と 2 に

$x+3$ を x と 3 に

分けると

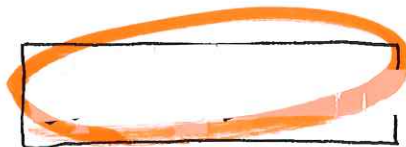
左の図のようになる。

ア、イ、カ、キ

それぞれの大きさを求め

$(x^2, 3x, 2x, 6)$

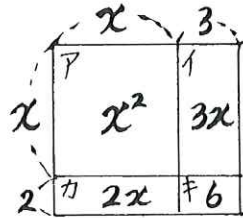
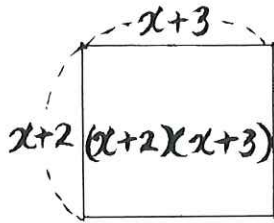
イとカをひとつにすると



と、 x に関する

2次式で表せる

[例]

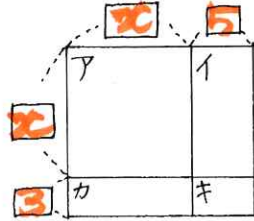
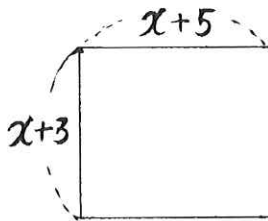


$$(x+2)(x+3)$$

$$= \boxed{x^2} + \boxed{3x} + \boxed{2x} + \boxed{6}$$

$$= \boxed{x^2} + (\boxed{3} + \boxed{2})x + \boxed{6}$$

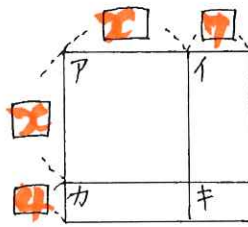
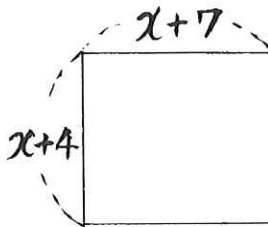
例にならって、図中の数字、ア、イ、カ、キ に記入しなさい。



$$(x+3)(x+5)$$

$$= \boxed{x^2} + \boxed{5x} + \boxed{3x} + \boxed{15}$$

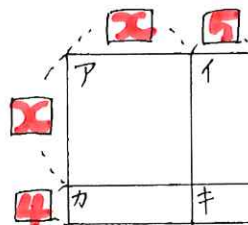
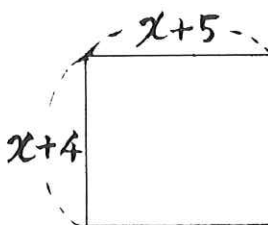
$$= \boxed{x^2} + (\boxed{5} + \boxed{3})x + \boxed{15}$$



$$(x+4)(x+7)$$

$$= \boxed{x^2} + \boxed{7x} + \boxed{4x} + \boxed{28}$$

$$= \boxed{x^2} + (\boxed{7} + \boxed{4})x + \boxed{28}$$

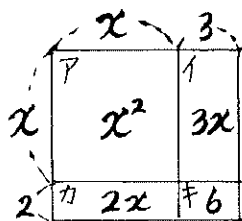
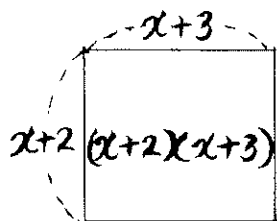


$$(x+4)(x+5)$$

$$= \boxed{x^2} + \boxed{5x} + \boxed{4x} + \boxed{20}$$

$$= \boxed{x^2} + (\boxed{5} + \boxed{4})x + \boxed{20}$$

[例]



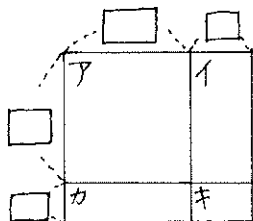
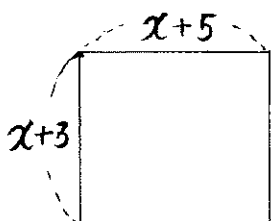
$$(x+2)(x+3)$$

$$= \boxed{ア}x^2 + \boxed{イ}3x + \boxed{カ}2x + \boxed{キ}6$$

$$= \boxed{ア}x^2 + (\boxed{イ}3 + \boxed{カ}2)x + \boxed{キ}6$$

$$=$$

例にならって、図中の数字 ア、イ、カ、キ に記入しなさい。

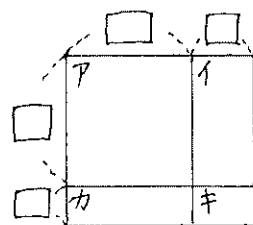
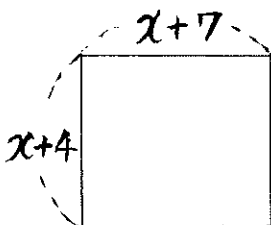


$$(x+3)(x+5)$$

$$= \boxed{ア} + \boxed{イ} + \boxed{カ} + \boxed{キ}$$

$$= \boxed{ア} + (\boxed{イ} + \boxed{カ})x + \boxed{キ}$$

$$=$$

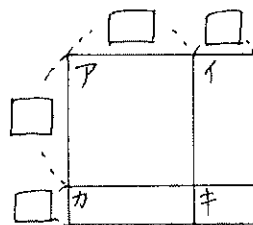
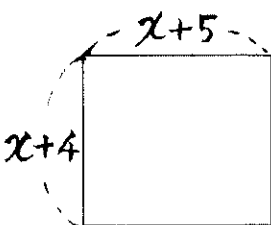


$$(x+4)(x+7)$$

$$= \boxed{ア} + \boxed{イ} + \boxed{カ} + \boxed{キ}$$

$$= \boxed{ア} + (\boxed{イ} + \boxed{カ})x + \boxed{キ}$$

$$=$$



$$(x+4)(x+5)$$

$$= \boxed{ア} + \boxed{イ} + \boxed{カ} + \boxed{キ}$$

$$= \boxed{ア} + (\boxed{イ} + \boxed{カ})x + \boxed{キ}$$

$$=$$

$$\begin{aligned} & (x+1)(x+2) \\ &= x^2 + 2x + x + 2 \\ &= x^2 + 3x + 2 \end{aligned}$$

$$\begin{aligned} & (x+2)(x+3) \\ &= x^2 + 3x + 2x + 6 \\ &= x^2 + 5x + 6 \end{aligned}$$

$$\begin{aligned} & (x+1)(x+3) \\ &= x^2 + 3x + x + 3 \\ &= x^2 + 4x + 3 \end{aligned}$$

$$\begin{aligned} & (x+2)(x+4) \\ &= x^2 + 4x + 2x + 8 \\ &= x^2 + 6x + 8 \end{aligned}$$

$$\begin{aligned} & (x+1)(x+4) \\ &= x^2 + 4x + x + 4 \\ &= x^2 + 5x + 4 \end{aligned}$$

$$\begin{aligned} & (x+2)(x+5) \\ &= x^2 + 5x + 2x + 10 \\ &= x^2 + 7x + 10 \end{aligned}$$

$$\begin{aligned} & (x+1)(x+5) \\ &= x^2 + 5x + x + 5 \\ &= x^2 + 6x + 5 \end{aligned}$$

$$\begin{aligned} & (x+3)(x+5) \\ &= x^2 + 5x + 3x + 15 \\ &= x^2 + 8x + 15 \end{aligned}$$

$$\begin{aligned} & (x+1)(x+2) \\ &= x^2 + 2x + x + 2 \\ &= \end{aligned}$$

$$\begin{aligned} & (x+2)(x+3) \\ &= \\ &= \end{aligned}$$

$$\begin{aligned} & (x+1)(x+3) \\ &= \\ &= \end{aligned}$$

$$\begin{aligned} & (x+2)(x+4) \\ &= \\ &= \end{aligned}$$

$$\begin{aligned} & (x+1)(x+4) \\ &= \\ &= \end{aligned}$$

$$\begin{aligned} & (x+2)(x+5) \\ &= \\ &= \end{aligned}$$

$$\begin{aligned} & (x+1)(x+5) \\ &= \\ &= \end{aligned}$$

$$\begin{aligned} & (x+3)(x+5) \\ &= \\ &= \end{aligned}$$

$$(x+2)(x+3)$$

$$= x^2 + 3x + 2x + 6$$

$$= x^2 + (3+2)x + 6$$

$$= x^2 + 5x + 6$$

$$(x+3)(x+5)$$

$$= x^2 + 5x + 3x + 3 \times 5$$

$$= x^2 + (5+3)x + 15$$

$$= x^2 + 8x + 15$$

$$(x+5)(x+8)$$

$$= x^2 + 8x + 5x + 40$$

$$= x^2 + 13x + 40$$

$$(x+4)(x+7)$$

$$= x^2 + 7x + 4x + 4 \times 7$$

$$= x^2 + 11x + 28$$

$$(x+7)(x+10)$$

$$= x^2 + 10x + 7x + 70$$

$$= x^2 + 17x + 70$$

$$(x+8)(x+11)$$

$$= x^2 + (8+11)x + 8 \times 11$$

$$= x^2 + 19x + 88$$

$$(x+a)(x+b)$$

$$= x^2 + bx + ax + axb$$

$$= x^2 + (a+b)x + ab$$

$$(x+m)(x+n)$$

$$= x^2 + nx + mx + mxn$$

$$= x^2 + (m+n)x + mn$$

$$(x+2)(x+3)$$

$$=$$
$$=$$
$$=$$

$$(x+3)(x+5)$$

$$=$$
$$=$$
$$=$$

$$(x+5)(x+8)$$

$$=$$
$$=$$

$$(x+4)(x+7)$$

$$=$$
$$=$$

$$(x+7)(x+10)$$

$$=$$
$$=$$
$$=$$

$$(x+8)(x+11)$$

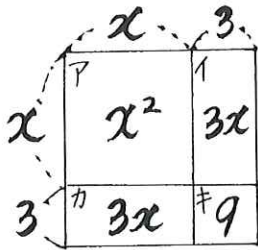
$$=$$
$$=$$
$$=$$

$$(x+a)(x+b)$$

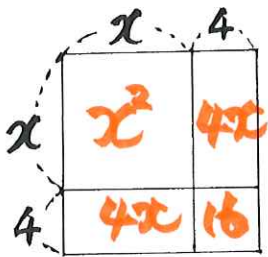
$$=$$
$$=$$

$$(x+m)(x+n)$$

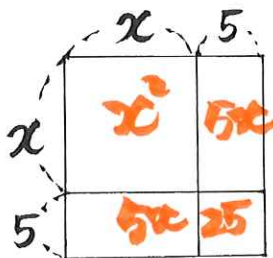
$$=$$
$$=$$



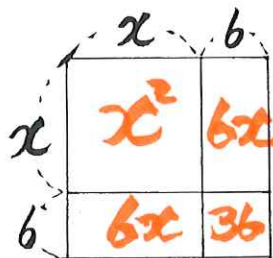
$$\begin{aligned}
 & (x+3)(x+3) \\
 &= \boxed{x^2} + \boxed{3x} + \boxed{3x} + \boxed{9} \\
 &= \boxed{x^2} + (\boxed{3} \times \boxed{2})x + \boxed{9} \\
 &=
 \end{aligned}$$



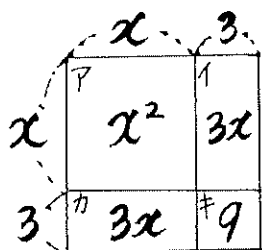
$$\begin{aligned}
 & (x+4)(x+4) \\
 &= \boxed{x^2} + \boxed{4x} + \boxed{4x} + \boxed{16} \\
 &= \boxed{x^2} + (\boxed{4} \times \boxed{2})x + \boxed{16} \\
 &=
 \end{aligned}$$



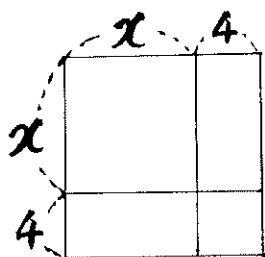
$$\begin{aligned}
 & (x+5)(x+5) \\
 &= \boxed{x^2} + \boxed{5x} + \boxed{5x} + \boxed{25} \\
 &= \boxed{x^2} + (\boxed{5} \times \boxed{2})x + \boxed{25} \\
 &= x^2 + 10x + 25
 \end{aligned}$$



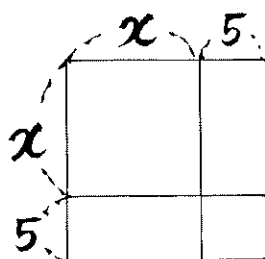
$$\begin{aligned}
 & (x+6)(x+6) \\
 &= \boxed{x^2} + \boxed{6x} + \boxed{6x} + \boxed{36} \\
 &= \boxed{x^2} + (\boxed{6} \times \boxed{2})x + \boxed{36} \\
 &= x^2 + 12x + 36
 \end{aligned}$$



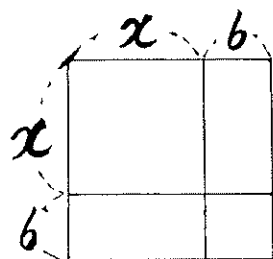
$$\begin{aligned}
 & (x+3)(x+3) \\
 &= \boxed{1}x^2 + \boxed{1}3x + \boxed{1}3x + \boxed{1}9 \\
 &= \boxed{x^2} + (\boxed{3} \times \boxed{2})x + \boxed{9} \\
 &=
 \end{aligned}$$



$$\begin{aligned}
 & (x+4)(x+4) \\
 &= \boxed{} + \boxed{} + \boxed{} + \boxed{} \\
 &= \boxed{} + (\boxed{} \times \boxed{2})x + \boxed{} \\
 &=
 \end{aligned}$$

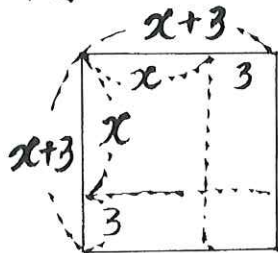


$$\begin{aligned}
 & (x+5)(x+5) \\
 &= \boxed{} + \boxed{} + \boxed{} + \boxed{} \\
 &= \boxed{} + (\boxed{} \times \boxed{2})x + \boxed{} \\
 &=
 \end{aligned}$$



$$\begin{aligned}
 & (x+b)(x+b) \\
 &= \boxed{} + \boxed{} + \boxed{} + \boxed{} \\
 &= \boxed{} + (\boxed{} \times \boxed{})x + \boxed{} \\
 &=
 \end{aligned}$$

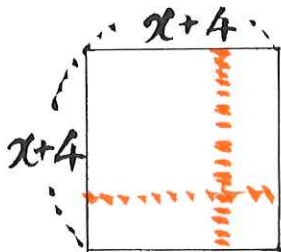
例



⇒

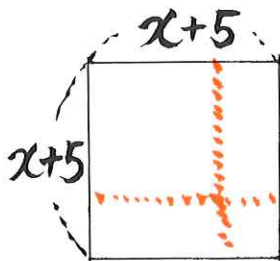
$$\begin{aligned} & (x+3)(x+3) \\ &= x^2 + 3x + 3x + 9 \\ &= x^2 + 2 \times 3x + 9 \\ &= x^2 + 6x + 9 \end{aligned}$$

例にならって計算しなさい。



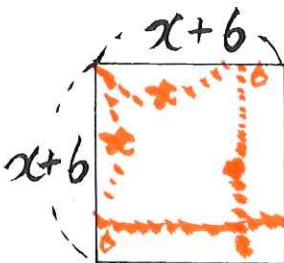
⇒

$$\begin{aligned} & (x+4)(x+4) \\ &= x^2 + 4x + 4x + 16 \\ &= x^2 + 2 \times 4x + 16 \\ &= x^2 + 8x + 16 \end{aligned}$$



⇒

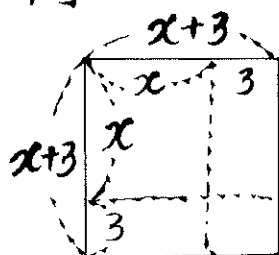
$$\begin{aligned} & (x+5)(x+5) \\ &= x^2 + 5x + 5x + 25 \\ &= x^2 + 2 \times 5x + 25 \\ &= x^2 + 10x + 25 \end{aligned}$$



⇒

$$\begin{aligned} & (x+6)(x+6) \\ &= x^2 + 6x + 6x + 36 \\ &= x^2 + 12x + 36 \end{aligned}$$

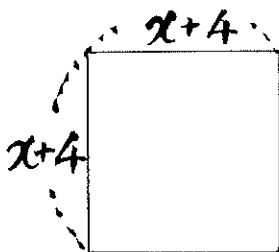
例



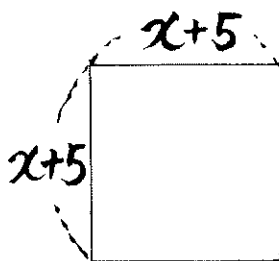
⇒

$$\begin{aligned}
 & (x+3)(x+3) \\
 &= x^2 + 3x + 3x + 9 \\
 &= x^2 + 2 \times 3x + 9 \\
 &= x^2 + 6x + 9
 \end{aligned}$$

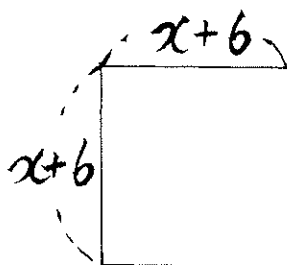
例にならって計算しなさい。



⇒



⇒



⇒

$$\begin{aligned}
 &(x+1)^2 \\
 &= (x+1)(x+1) \\
 &= x^2 + x + x + 1 \\
 &= x^2 + 2x + 1
 \end{aligned}$$

$$\begin{aligned}
 &(x+5)^2 \\
 &= (x+5)(x+5) \\
 &= x^2 + 5x + 5x + 25 \\
 &= x^2 + 10x + 25
 \end{aligned}$$

$$\begin{aligned}
 &(x+2)^2 \\
 &= (x+2)(x+2) \\
 &= x^2 + 2x + 2x + 4 \\
 &= x^2 + 4x + 4
 \end{aligned}$$

$$\begin{aligned}
 &(x+10)^2 \\
 &= (x+10)(x+10) \\
 &= x^2 + 10x + 10x + 100 \\
 &= x^2 + 20x + 100
 \end{aligned}$$

$$\begin{aligned}
 &(x+3)^2 \\
 &= (x+3)(x+3) \\
 &= x^2 + 3x + 3x + 9 \\
 &= x^2 + 6x + 9
 \end{aligned}$$

$$\begin{aligned}
 &(x+20)^2 \\
 &= x^2 + 20x + 20x + 400 \\
 &= x^2 + 40x + 400 \\
 &=
 \end{aligned}$$

$$\begin{aligned}
 &(x+4)^2 \\
 &= (x+4)(x+4) \\
 &= x^2 + 4x + 4x + 16 \\
 &= x^2 + 8x + 16
 \end{aligned}$$

$$\begin{aligned}
 &(x+a)^2 \\
 &= (x+a)(x+a) \\
 &= x^2 + ax + ax + a^2 \\
 &= x^2 + 2ax + a^2
 \end{aligned}$$

$$\begin{aligned}(x+1)^2 \\ &= (x+1)(x+1) \\ &= \\ &= \end{aligned}$$

$$\begin{aligned}(x+5)^2 \\ &= \\ &= \\ &= \end{aligned}$$

$$\begin{aligned}(x+2)^2 \\ &= \\ &= \\ &= \end{aligned}$$

$$\begin{aligned}(x+10)^2 \\ &= \\ &= \\ &= \end{aligned}$$

$$\begin{aligned}(x+3)^2 \\ &= \\ &= \\ &= \end{aligned}$$

$$\begin{aligned}(x+20)^2 \\ &= \\ &= \\ &= \end{aligned}$$

$$\begin{aligned}(x+4)^2 \\ &= \\ &= \\ &= \end{aligned}$$

$$\begin{aligned}(x+a)^2 \\ &= \\ &= \\ &= \end{aligned}$$

$$\begin{aligned}(x+3)^2 \\ &= x^2 + 2 \cdot 3x + 9 \\ &= x^2 + 6x + 9\end{aligned}$$

$$\begin{aligned}(x+1)^2 \\ &= x^2 + 2x + 1\end{aligned}$$

$$\begin{aligned}(x+7)^2 \\ &= x^2 + 14x + 49\end{aligned}$$

$$\begin{aligned}(x+4)^2 \\ &= x^2 + 8x + 16\end{aligned}$$

$$\begin{aligned}(x+5)^2 \\ &= x^2 + 10x + 25\end{aligned}$$

$$\begin{aligned}(x+8)^2 \\ &= x^2 + 16x + 64\end{aligned}$$

$$(x+9)^2$$

$$= x^2 + 18x + 81$$

$$(x+a)^2$$

$$= x^2 + 2ax + a^2$$

$$(x+3)^2$$

$$=$$
$$=$$
$$=$$

$$(x+1)^2$$

$$=$$
$$=$$
$$=$$

$$(x+7)^2$$

$$=$$
$$=$$
$$=$$

$$(x+4)^2$$

$$=$$
$$=$$
$$=$$

$$(x+5)^2$$

$$=$$
$$=$$
$$=$$

$$(x+8)^2$$

$$=$$
$$=$$
$$=$$

$$(x+9)^2$$

$$=$$
$$=$$
$$=$$

$$(x+a)^2$$

$$=$$
$$=$$
$$=$$

次の式を展開しなさい。

$$\begin{aligned}
 & (x+2)(x+3) \\
 &= x^2 + 3x + 2x + 2 \times 3 \\
 &= x^2 + (3+2)x + 6 \\
 &= x^2 + 5x + 6
 \end{aligned}$$

$$\begin{aligned}
 & (x+8)(x+2) \\
 &= x^2 + 10x + 16 \\
 &= \\
 &=
 \end{aligned}$$

$$\begin{aligned}
 & (x+4)^2 \\
 &= x^2 + 4x \times 2 + 4^2 \\
 &= x^2 + 8x + 16 \\
 &=
 \end{aligned}$$

$$\begin{aligned}
 & (x+1)^2 \\
 &= x^2 + 2x + 1 \\
 &= \\
 &=
 \end{aligned}$$

$$\begin{aligned}
 & (x+5)(x+6) \\
 &= x^2 + 11x + 30 \\
 &= \\
 &=
 \end{aligned}$$

$$\begin{aligned}
 & (x+1)(x+4) \\
 &= x^2 + 5x + 4 \\
 &= \\
 &=
 \end{aligned}$$

$$\begin{aligned}
 & (x+7)^2 \\
 &= x^2 + 14x + 49 \\
 &= \\
 &=
 \end{aligned}$$

$$\begin{aligned}
 & (a+b)^2 \\
 &= (a+b) \times (a+b) \\
 &= a^2 + ab + ba + b^2 \\
 &= a^2 + 2ab + b^2
 \end{aligned}$$

次の式を展開しなさい。

$$(x+2)(x+3)$$

$$=$$
$$=$$
$$=$$

$$(x+8)(x+2)$$

$$=$$
$$=$$
$$=$$

$$(x+4)^2$$

$$=$$
$$=$$
$$=$$

$$(x+1)^2$$

$$=$$
$$=$$
$$=$$

$$(x+5)(x+6)$$

$$=$$
$$=$$
$$=$$

$$(x+1)(x+4)$$

$$=$$
$$=$$
$$=$$

$$(x+7)^2$$

$$=$$
$$=$$
$$=$$

$$(a+b)^2$$

$$=$$
$$=$$
$$=$$

次の式を展開しなさい。

$$\begin{aligned} & (x+4)(x+5) \\ &= x^2 + 4x + 5x + 20 \\ &= x^2 + 9x + 20 \end{aligned}$$

$$\begin{aligned} & (x+1)(x+2) \\ &= x^2 + 3x + 2 \end{aligned}$$

$$\begin{aligned} & (x+3)^2 \\ &= x^2 + 6x + 9 \end{aligned}$$

$$\begin{aligned} & (x+9)^2 \\ &= x^2 + 18x + 81 \end{aligned}$$

$$\begin{aligned} & (x+4)(x+6) \\ &= x^2 + 10x + 24 \end{aligned}$$

$$\begin{aligned} & (x+3)(x+4) \\ &= x^2 + 7x + 12 \end{aligned}$$

$$\begin{aligned} & (x+5)^2 \\ &= x^2 + 10x + 25 \end{aligned}$$

$$\begin{aligned} & (x+a)^2 \\ &= x^2 + 2ax + a^2 \end{aligned}$$

次の式を展開しなさい。

$$(x+4)(x+5)$$

$$=$$

$$=$$

$$=$$

$$(x+1)(x+2)$$

$$=$$

$$=$$

$$=$$

$$(x+3)^2$$

$$=$$

$$=$$

$$=$$

$$(x+9)^2$$

$$=$$

$$=$$

$$=$$

$$(x+4)(x+6)$$

$$=$$

$$=$$

$$=$$

$$(x+3)(x+4)$$

$$=$$

$$=$$

$$=$$

$$(x+5)^2$$

$$=$$

$$=$$

$$=$$

$$(x+a)^2$$

$$=$$

$$=$$

$$=$$