

～分配法則～

次の式を理解しなさい。

$$\begin{aligned}
 &15 \times 3 \\
 &= (10 + 5) \times 3 \\
 &= 10 \times 3 + 5 \times 3
 \end{aligned}$$

$$\begin{aligned}
 &3 \times 15 \\
 &= 3 \times (10 + 5) \\
 &= 3 \times 10 + 3 \times 5
 \end{aligned}$$

$$\begin{aligned}
 &3(10 + 5) \\
 &= 3 \times 10 + 3 \times 5
 \end{aligned}$$

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

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

左にならって  
次の式を完成しなさい。

$$\begin{aligned}
 &25 \times 3 \\
 &= (20 + \boxed{5}) \times 3 \\
 &= 20 \times \boxed{3} + \boxed{5} \times 3
 \end{aligned}$$

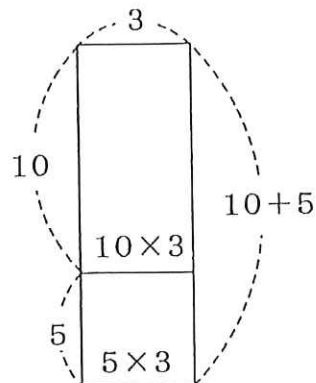
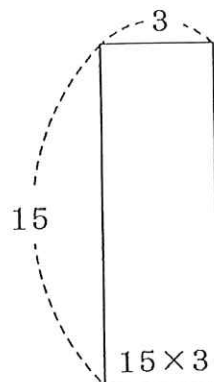
$$\begin{aligned}
 &5 \times 15 \\
 &= 5 \times (\boxed{10} + \boxed{5}) \\
 &= 5 \times \boxed{10} + 5 \times \boxed{5}
 \end{aligned}$$

$$\begin{aligned}
 &3(20 + 5) \\
 &= \boxed{3} \times \boxed{20} + \boxed{3} \times \boxed{5}
 \end{aligned}$$

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

$$\begin{aligned}
 &5(x - y) \\
 &= \boxed{5x} - \boxed{5y}
 \end{aligned}$$

参考



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

左にならって  
次の式を完成しなさい。

$$\begin{aligned}
 &25 \times 3 \\
 &= (20 + \square) \times 3 \\
 &= 20 \times \square + \square \times 3
 \end{aligned}$$

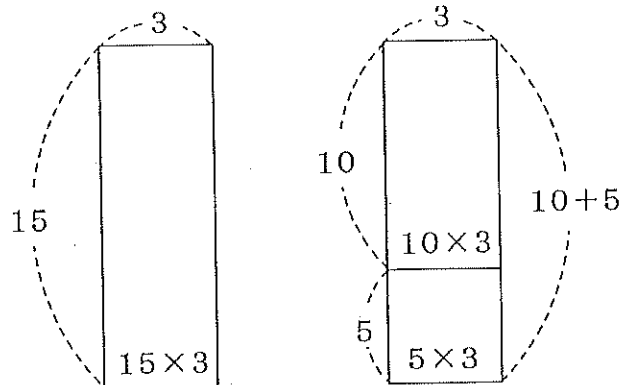
$$\begin{aligned}
 &5 \times 15 \\
 &= 5 \times (\square + \square) \\
 &= 5 \times \square + 5 \times \square
 \end{aligned}$$

$$\begin{aligned}
 &3(20 + 5) \\
 &= \square \times \square + \square \times \square
 \end{aligned}$$

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

$$\begin{aligned}
 &5(x - y) \\
 &= \square - \square
 \end{aligned}$$

参考



次の式を完成しなさい。

【例】

$$10 - (7 + 3)$$

$$= 10 - 7 - 3$$

$$10 - (x + y)$$

$$= 10 - x - y$$

$$20 - (5 + 2)$$

$$= 20 - 5 - 2$$

$$10 - (x + y)$$

$$= 10 - x - y$$

$$10 - (a + b)$$

$$= 10 - a - b$$

$$10 - 2(x + y)$$

$$= 10 - 2x - 2y$$

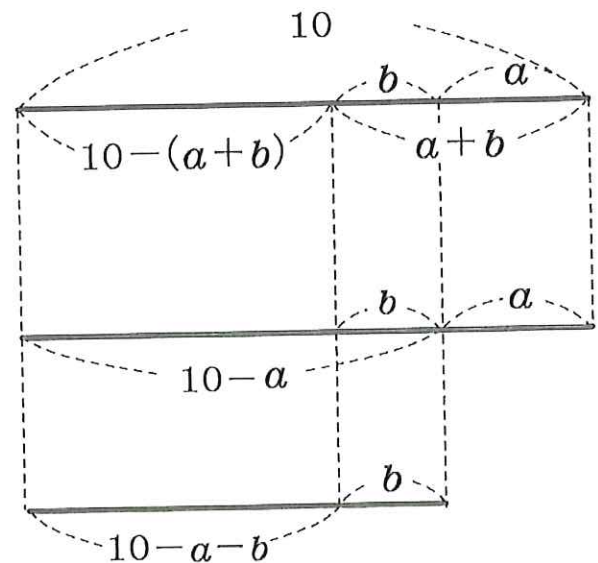
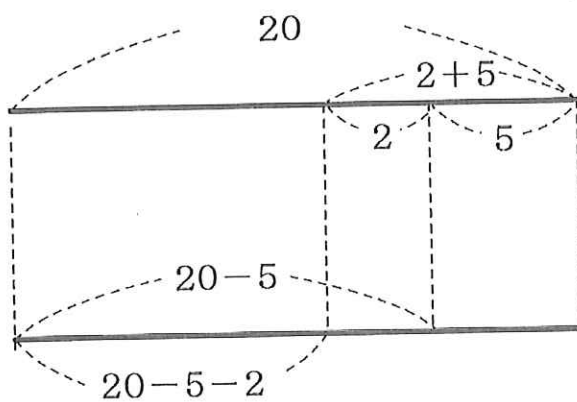
$$10 - 3(a + b)$$

$$= 10 - 3a - 3b$$

$$10 - 2(x - y)$$

$$= 10 - 2x + 2y$$

上と同様な問題を作り、答えなさい。



次の式を完成しなさい。

【例】

$$10 - (7 + 3)$$

$$= 10 - 7 - 3$$

$$10 - (x + y)$$

$$= 10 - x - y$$

$$20 - (5 + 2)$$

$$= 20 - 5 - 2$$

$$10 - (x + y)$$

$$=$$

$$10 - (a + b)$$

$$= 10 - a - b$$

$$10 - 2(x + y)$$

$$=$$

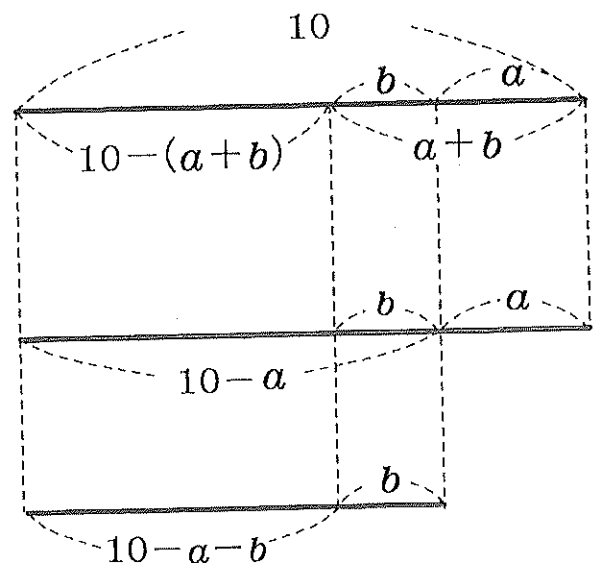
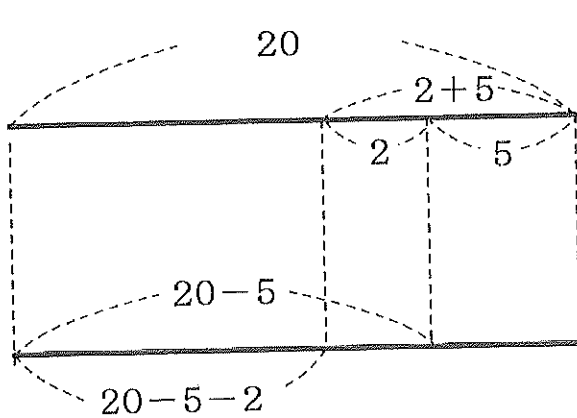
$$10 - 3(a + b)$$

$$= 10 - 3a - 3b$$

$$10 - 2(x - y)$$

$$=$$

上と同様な問題を作り、答えなさい。



次の式を完成させなさい。

【例】

$$20 - (10 - 1)$$

$$= 20 - 10 + 1$$

分かりますか？

$$10x - (x + y)$$

$$= 10x - x - y$$

$$= 9x - y$$

$$20 - (10 - 2)$$

$$= 20 - 10 + 2$$

$$10x - (x - y)$$

$$= 10x - x + y$$

$$= 9x + y$$

$$20 - (a - b)$$

$$= 20 - a + b$$

$$10x - 2(x + y)$$

$$= 10x - 2x - 2y$$

$$= 8x - 2y$$

$$20 - 3(a - b)$$

$$= 20 - 3a + 3b$$

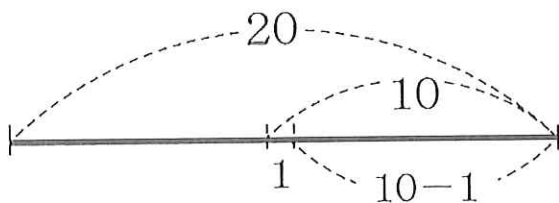
$$10x - 2(x - y)$$

$$= 10x - 2x + 2y$$

$$= 8x + 2y$$

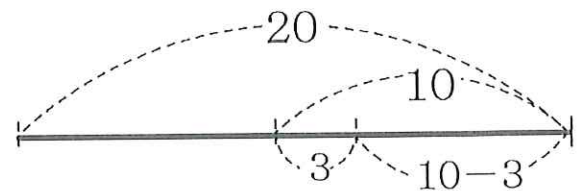
上と同様の問題を作り答えなさい。

次の線分図と式を良く見て式の変化を考えなさい。



$$20 - (10 - 1) \dots \textcircled{ア}$$

$$= 20 - 10 + 1 \dots \text{イ}$$



$$20 - (10 - 3)$$

$$= 20 - 10 + 3$$

②の式計算をするのにイのように20-10としてしまうと後ろの1の分まで引いてしまうことになるので足すのです。

次の式を完成させなさい。

【例】

$20 - (10 - 1)$	$10x - (x + y)$
$= 20 - 10 + 1$	$= 10x - x - y$
分かりますか？	$=$

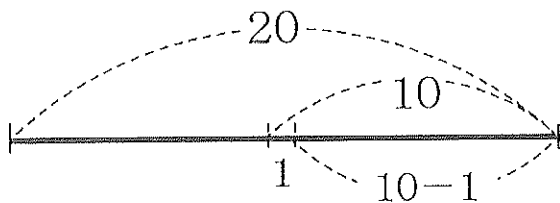
$20 - (10 - 2)$	$10x - (x - y)$
$= 20 - 10 + 2$	$= 10x - x + y$
	$=$

$20 - (a - b)$	$10x - 2(x + y)$
$= 20 - a + b$	$= 10x - 2x - 2y$
	$=$

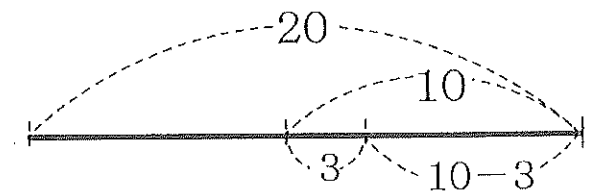
$20 - 3(a - b)$	$10x - 2(x - y)$
$= 20 - 3a + 3b$	$= 10x - 2x + 2y$
	$=$

上と同様の問題を作り答えなさい。

次の線分図と式を良く見て式の変化を考えなさい。



$20 - (10 - 1) \dots \text{ア}$
$= 20 - 10 - 1 \dots \text{イ}$



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

アの式計算をするのにイのように20-10としてしまうと後ろの1の分まで引いてしまうことになるので足すのです。

～分配法則～

計算しなさい

$$3(10+a)$$

$$= 30 + 3a$$

$$20 + 3(10+a)$$

$$= 20 + 30 + 3a$$

$$= 50 + 3a$$

$$3(10-a)$$

$$= 30 - 3a$$

$$20 + 3(10-a)$$

$$= 20 + 30 - 3a$$

$$= 50 - 3a$$

$$5(a+2)$$

$$= 5a + 10$$

$$30 - 2(10+a)$$

$$= 30 - 20 - 2a$$

$$= 10 - 2a$$

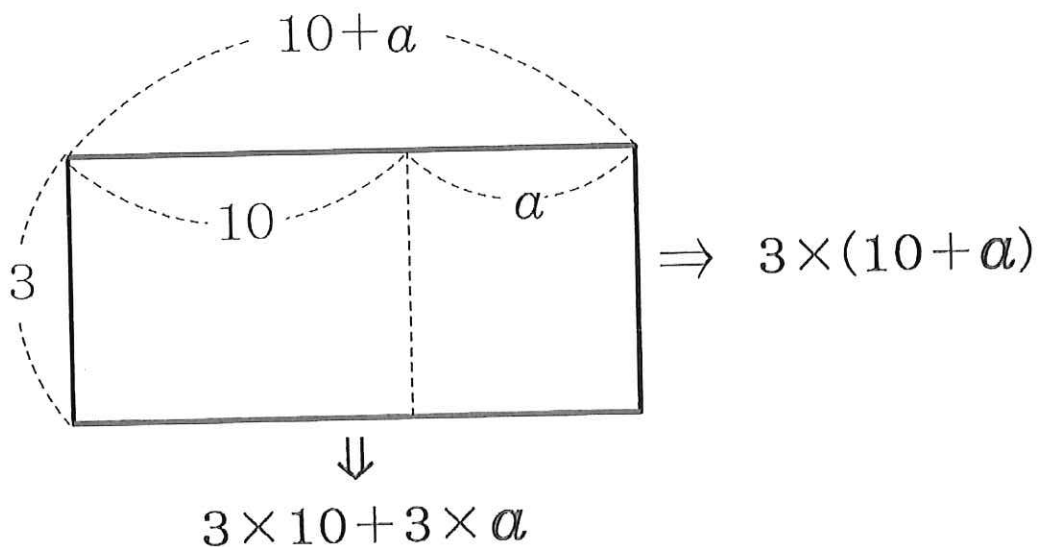
$$5(a-2)$$

$$= 5a - 10$$

$$30 + 2(10-a)$$

$$= 30 + 20 - 2a$$

$$= 50 - 2a$$



～分配法則～

計算しなさい

$$3(10+a) = 20+3(10+a)$$

$$=$$

$$=$$

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

$$=$$

$$=$$

$$5(a+2) = 30-2(10+a)$$

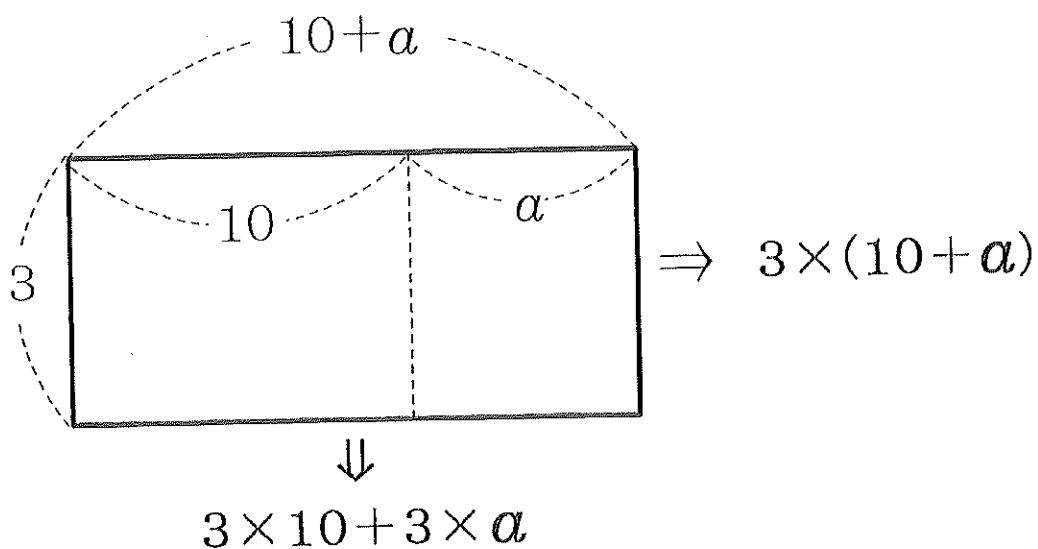
$$=$$

$$=$$

$$5(a-2) = 30+2(10-a)$$

$$=$$

$$=$$





$$2(a+b)$$

$$= 2a + 2b$$

$$2(a-b)$$

$$= 2a - 2b$$

$$-2(a+b)$$

$$= -2a - 2b$$

$$-2(a-b)$$

$$= -2a + 2b$$

$$2(-a+b)$$

$$= -2a + 2b$$

$$-2(a+b-c)$$

$$= -2a - 2b + 2c$$

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

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

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

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

$$\begin{array}{r} 2(a-b) \\ -3(a-b) \\ \hline = 2a - 2b \\ - 3a + 3b \\ \hline -a + b \end{array}$$

$$\begin{array}{r} -2(a-b) \\ +3(a-b) \\ \hline = -2a + 2b \\ + 3a - 3b \\ \hline a - b \end{array}$$

$$2(a+b)$$

$$2(a-b)$$

$$-2(a+b)$$

$$-2(a-b)$$

$$2(-a+b)$$

$$-2(a+b-c)$$

$$= \begin{array}{r} 2(a+b) \\ +3(a-b) \end{array}$$

$$= \begin{array}{r} 2(a+b) \\ -3(a-b) \end{array}$$

$$= \begin{array}{r} 2(a-b) \\ +3(a-b) \end{array}$$

$$= \begin{array}{r} 2(a-b) \\ -3(a+b) \end{array}$$

$$= \begin{array}{r} 2(a-b) \\ -3(a-b) \end{array}$$

$$= \begin{array}{r} -2(a-b) \\ +3(a-b) \end{array}$$

次の計算をなさい。

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

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

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

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

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

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

【例】

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

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

同様の問題を作り答えなさい

$a$ を $x$ に、 $b$ を $y$ に変えて式を作りなさい。

次の計算をしなさい。

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

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

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

【例】

$$\begin{array}{rcl}
 5(a-b)-2(a-b) & & 3(a-b)-5(a-b) \\
 = \textcircled{5a} - 5b \quad \textcircled{-2a} + 2b & & = \\
 = 3a \quad -3b & & =
 \end{array}$$

同様の問題を作り答えなさい

$a$ を $x$ に、 $b$ を $y$ に変えて式を作りなさい。

ミスがなくなるまで練習せよ

時 分 ~ 時 分まで ( )分

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

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

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

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

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

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

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

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

ミスがなくなるまで練習せよ  
 時 分～ 時 分まで ( )分

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

$$=$$

$$=$$

$$3(x+y)-2(x+y)$$

$$=$$

$$=$$

$$3(x+y)+2(x-y)$$

$$=$$

$$=$$

$$3(x+y)-2(x-y)$$

$$=$$

$$=$$

$$3(x-y)+2(x+y)$$

$$=$$

$$=$$

$$3(x-y)-2(x+y)$$

$$=$$

$$=$$

$$3(x-y)+2(x-y)$$

$$=$$

$$=$$

$$3(x-y)-2(x-y)$$

$$=$$

$$=$$

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

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

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

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

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

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

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

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

絶対にひとつの間違いも無く、速やかにできるように  
なるまで練習せよ

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

=

=

$$2(x+y)-3(x+y)$$

=

=

$$2(x+y)+3(x-y)$$

=

=

$$2(x+y)-3(x-y)$$

=

=

$$2(x-y)+3(x+y)$$

=

=

$$2(x-y)-3(x+y)$$

=

=

$$2(x-y)+3(x-y)$$

=

=

$$2(x-y)-3(x-y)$$

=

=

絶対にひとつの間違ひも無く、速やかにできるように  
なるまで練習せよ