

1. 次の問題を解きなさい。

Answer the following questions.

2. たすき掛けを用いて因数分解せよ。

Factor the following equation using cross multiplication.

例題	問題
$(ax + b)(cx + d)$ $= 2x^2 + \bigcirc x + 3$ となる式を求めよ。 Find the formula. $\begin{pmatrix} ax \times cx = 2x^2 \\ b \times d = 3 \end{pmatrix}$ $a \times c = 2$ となる数は $a = 2, c = 1$ $b \times d = 3$ となる数は ① $b = 3, d = 1$ $\begin{array}{r} 2 \times 3 \rightarrow 3 \\ 1 \times 1 \rightarrow 2 \\ \hline 5 \end{array}$ $\underline{(2x + 3)(x + 1)}$ $= 2x^2 + 5x + 3$ ② $b = 1, d = 3$ $\begin{array}{r} 2 \times 1 \rightarrow 1 \\ 1 \times 3 \rightarrow 6 \\ \hline 7 \end{array}$ $\underline{(2x + 1)(x + 3)}$ $= 2x^2 + 7x + 3$ ③ $b = -3, d = -1$ $\begin{array}{r} 2 \times -3 \rightarrow -3 \\ 1 \times -1 \rightarrow -2 \\ \hline -5 \end{array}$ $\underline{(2x - 3)(x - 1)}$ $= 2x^2 - 5x + 3$ ④ $b = -1, d = -3$ $\begin{array}{r} 2 \times -1 \rightarrow -1 \\ 1 \times -3 \rightarrow -6 \\ \hline -7 \end{array}$ $\underline{(2x - 1)(x - 3)}$ $= 2x^2 - 7x + 3$	$(ax + b)(cx + d)$ $= 2x^2 + \bigcirc x + 5$ となる式を求めよ。

例題	問題
① $6x^2 + 5x + 1$ $= \underline{(2x + 1)(3x + 1)}$ $\begin{pmatrix} a \times c = 6, b \times d = 1 \\ 6 \times 1, 1 \times 1 \\ 3 \times 2, (-1) \times (-1) \end{pmatrix}$ $\begin{array}{r} 6 \times 1 \rightarrow 1 \\ 1 \times 3 \rightarrow 6 \\ \hline 7 \end{array}$ $\begin{array}{r} 3 \times 1 \rightarrow 2 \\ 2 \times 1 \rightarrow 3 \\ \hline 5 \end{array}$	① $4x^2 + 5x + 1$
② $2x^2 + x - 1$ $= \underline{(2x - 1)(x + 1)}$ $\begin{pmatrix} a \times c = 2, b \times d = -1 \\ 2 \times 1, 1 \times (-1) \end{pmatrix}$ $\begin{array}{r} 2 \times 1 \rightarrow 1 \\ 1 \times -1 \rightarrow -2 \\ \hline -1 \end{array}$ $\begin{array}{r} 2 \times -1 \rightarrow -1 \\ 1 \times 1 \rightarrow 2 \\ \hline 1 \end{array}$	② $3x^2 + 2x - 1$
③ $2x^2 + 5x + 2$ $= \underline{(2x + 1)(x + 2)}$ $\begin{pmatrix} a \times c = 2, b \times d = 2 \\ 2 \times 1, 2 \times 1 \end{pmatrix}$ $\begin{array}{r} 2 \times 2 \rightarrow 2 \\ 1 \times 2 \rightarrow 2 \\ \hline 4 \end{array}$ $\begin{array}{r} 2 \times 1 \rightarrow 1 \\ 1 \times 2 \rightarrow 4 \\ \hline 5 \end{array}$	③ $3x^2 + 10x + 3$

1. 次の問題を解きなさい。

Answer the following questions.

2. たすき掛けを用いて因数分解せよ。

Factor the following equation using cross multiplication.

例題	問題
$(ax + b)(cx + d)$ $= 3x^2 + \bigcirc x - 2$ となる式を求めよ。 Find the formula. $\begin{pmatrix} ax \times cx = 3x^2 \\ b \times d = -2 \end{pmatrix}$ $a \times c = 3$ となる数は $a = 3, c = 1$ $b \times d = -2$ となる数は ① $b = 1, d = -2$ $\begin{array}{r} 3 \times 1 \rightarrow 1 \\ 1 \times -2 \rightarrow -2 \\ \hline -1 \end{array}$ $(3x + 1)(x - 2)$ $= 3x^2 - 5x - 2$ ② $b = -2, d = 1$ $\begin{array}{r} 3 \times -2 \rightarrow -6 \\ 1 \times 1 \rightarrow 1 \\ \hline -5 \end{array}$ $(3x - 2)(x + 1)$ $= 3x^2 + x - 2$ ③ $b = -1, d = 2$ $\begin{array}{r} 3 \times -1 \rightarrow -3 \\ 1 \times 2 \rightarrow 2 \\ \hline -1 \end{array}$ $(3x - 1)(x + 2)$ $= 3x^2 + 5x - 2$ ④ $b = 2, d = -1$ $\begin{array}{r} 3 \times 2 \rightarrow 6 \\ 1 \times -1 \rightarrow -1 \\ \hline 5 \end{array}$ $(3x + 2)(x - 1)$ $= 3x^2 - x - 2$	$(ax + b)(cx + d)$ $= 3x^2 + \bigcirc x - 5$ となる式を求めよ。

例題	問題
① $8x^2 + 6x + 1$ $= (4x + 1)(2x + 1)$ $\begin{pmatrix} a \times c = 8, b \times d = 1 \\ 8 \times 1, 1 \times 1 \\ 4 \times 2, (-1) \times (-1) \end{pmatrix}$ $\begin{array}{r} 8 \times 1 \rightarrow 8 \\ 1 \times 1 \rightarrow 1 \\ \hline 9 \end{array}$ $\begin{array}{r} 4 \times 2 \rightarrow 8 \\ 2 \times 1 \rightarrow 2 \\ \hline 6 \end{array}$	① $9x^2 + 6x + 1$
② $7x^2 + 6x - 1$ $= (7x + 1)(x - 1)$ $\begin{pmatrix} a \times c = 7, b \times d = -1 \\ 7 \times 1, 1 \times (-1) \end{pmatrix}$ $\begin{array}{r} 7 \times 1 \rightarrow 7 \\ 1 \times (-1) \rightarrow -1 \\ \hline -6 \end{array}$ $\begin{array}{r} 7 \times -1 \rightarrow -7 \\ 1 \times 1 \rightarrow 1 \\ \hline -6 \end{array}$	② $5x^2 + 4x - 1$
③ $2x^2 + 7x + 5$ $= (2x + 5)(x + 1)$ $\begin{pmatrix} a \times c = 2, b \times d = 5 \\ 2 \times 1, 5 \times 1 \end{pmatrix}$ $\begin{array}{r} 2 \times 1 \rightarrow 2 \\ 1 \times 5 \rightarrow 5 \\ \hline 7 \end{array}$ $\begin{array}{r} 2 \times 5 \rightarrow 10 \\ 1 \times 1 \rightarrow 1 \\ \hline 11 \end{array}$	③ $3x^2 + 8x + 5$

れいだい 例題	もんだい 問題
<div>① $6x^2 + 7x + 1$</div> <div>$= \underline{(6x + 1)(x + 1)}$</div> <div><div><div>6</div><div>1</div><div>×</div></div><div><div>1</div><div>1</div><div>→</div><div>1</div><div>→</div><div>6</div></div><div><div>7</div></div></div> <div><div><div>3</div><div>2</div><div>×</div></div><div><div>1</div><div>1</div><div>→</div><div>2</div><div>→</div><div>3</div></div><div><div>5</div></div></div>	<div>① $4x^2 + 4x + 1$</div>
<div>② $8x^2 - 6x + 1$</div> <div>$= \underline{(4x - 1)(2x - 1)}$</div> <div><div><div>8</div><div>1</div><div>×</div></div><div><div>-1</div><div>-1</div><div>→</div><div>-1</div><div>→</div><div>-8</div></div><div><div>-9</div></div></div> <div><div><div>4</div><div>2</div><div>×</div></div><div><div>-1</div><div>-1</div><div>→</div><div>-2</div><div>→</div><div>-4</div></div><div><div>-6</div></div></div>	<div>② $9x^2 - 10x + 1$</div>
<div>③ $3x^2 + 2x - 1$</div> <div>$= \underline{(3x - 1)(x + 1)}$</div> <div><div><div>3</div><div>1</div><div>×</div></div><div><div>1</div><div>-1</div><div>→</div><div>1</div><div>→</div><div>-3</div></div><div><div>-2</div></div></div> <div><div><div>3</div><div>1</div><div>×</div></div><div><div>-1</div><div>1</div><div>→</div><div>-1</div><div>→</div><div>3</div></div><div><div>2</div></div></div>	<div>③ $5x^2 + 4x - 1$</div>
<div>④ $2x^2 - x - 1$</div> <div>$= \underline{(2x + 1)(x - 1)}$</div> <div><div><div>2</div><div>1</div><div>×</div></div><div><div>1</div><div>-1</div><div>→</div><div>1</div><div>→</div><div>-2</div></div><div><div>-1</div></div></div> <div><div><div>2</div><div>1</div><div>×</div></div><div><div>-1</div><div>1</div><div>→</div><div>-1</div><div>→</div><div>2</div></div><div><div>1</div></div></div>	<div>④ $7x^2 + 6x - 1$</div>

れいだい 例題	もんだい 問題
<div>⑤ $5x^2 + 7x + 2$</div> <div>$= \underline{(5x + 2)(x + 1)}$</div> <div><div><div>5</div><div>1</div><div>×</div></div><div><div>2</div><div>1</div><div>→</div><div>2</div><div>→</div><div>5</div></div><div><div>7</div></div></div> <div><div><div>5</div><div>1</div><div>×</div></div><div><div>1</div><div>2</div><div>→</div><div>1</div><div>→</div><div>10</div></div><div><div>11</div></div></div>	<div>⑤ $5x^2 + 8x + 3$</div>
<div>⑥ $3x^2 + 8x + 4$</div> <div>$= \underline{(3x + 2)(x + 2)}$</div> <div><div><div>3</div><div>1</div><div>×</div></div><div><div>4</div><div>1</div><div>→</div><div>1</div><div>→</div><div>5</div></div><div><div>7</div></div></div> <div><div><div>3</div><div>1</div><div>×</div></div><div><div>1</div><div>4</div><div>→</div><div>1</div><div>→</div><div>10</div></div><div><div>11</div></div></div> <div><div><div>3</div><div>1</div><div>×</div></div><div><div>2</div><div>2</div><div>→</div><div>2</div><div>→</div><div>6</div></div><div><div>8</div></div></div>	<div>⑥ $5x^2 + 12x + 4$</div>
<div>⑦ $3x^2 + x - 2$</div> <div>$= \underline{(3x - 2)(x + 1)}$</div> <div><div><div>3</div><div>1</div><div>×</div></div><div><div>2</div><div>-1</div><div>→</div><div>2</div><div>→</div><div>-3</div></div><div><div>-1</div></div></div> <div><div><div>3</div><div>1</div><div>×</div></div><div><div>-1</div><div>2</div><div>→</div><div>-1</div><div>→</div><div>6</div></div><div><div>5</div></div></div> <div><div><div>3</div><div>1</div><div>×</div></div><div><div>1</div><div>-2</div><div>→</div><div>1</div><div>→</div><div>-6</div></div><div><div>-5</div></div></div> <div><div><div>3</div><div>1</div><div>×</div></div><div><div>-2</div><div>1</div><div>→</div><div>-2</div><div>→</div><div>3</div></div><div><div>1</div></div></div>	<div>⑦ $3x^2 + 2x - 5$</div>

れいだい 例題	もんだい 問題
<div>① $3x^2 + 4x + 1$</div> <div>$= \underline{(3x + 1)(x + 1)}$</div> <div>$\begin{array}{r} 3 \times 1 \rightarrow 1 \\ 1 \times 1 \rightarrow 3 \\ \hline 4 \end{array}$</div>	<div>① $2x^2 + 3x + 1$</div>
<div>② $7x^2 - 8x + 1$</div> <div>$= \underline{(7x - 1)(x - 1)}$</div> <div>$\begin{array}{r} 7 \times -1 \rightarrow -1 \\ 1 \times -1 \rightarrow -7 \\ \hline -8 \end{array}$</div>	<div>② $5x^2 - 6x + 1$</div>
<div>③ $3x^2 + 5x + 2$</div> <div>$= \underline{(3x + 2)(x + 1)}$</div> <div>$\begin{array}{r} 3 \times 2 \rightarrow 2 \\ 1 \times 1 \rightarrow 3 \\ \hline 5 \end{array}$ $\begin{array}{r} 3 \times 1 \rightarrow 1 \\ 1 \times 2 \rightarrow 6 \\ \hline 7 \end{array}$</div>	<div>③ $2x^2 + 5x + 3$</div>
<div>④ $2x^2 - x - 3$</div> <div>$= \underline{(2x - 3)(x + 1)}$</div> <div>$\begin{array}{r} 2 \times 3 \rightarrow 3 \\ 1 \times -1 \rightarrow -2 \\ \hline 1 \end{array}$ $\begin{array}{r} 2 \times -1 \rightarrow -1 \\ 1 \times 3 \rightarrow 6 \\ \hline 5 \end{array}$ $\begin{array}{r} 2 \times 1 \rightarrow 1 \\ 1 \times -3 \rightarrow -6 \\ \hline -5 \end{array}$ $\begin{array}{r} 2 \times -3 \rightarrow -3 \\ 1 \times 1 \rightarrow 2 \\ \hline -1 \end{array}$</div>	<div>④ $5x^2 - 3x - 2$</div>

れいだい 例題	もんだい 問題
<div>⑤ $3x^2 + 8x + 4$</div> <div>$= \underline{(3x + 2)(x + 2)}$</div> <div>$\begin{array}{r} 3 \times 4 \rightarrow 4 \\ 1 \times 1 \rightarrow 3 \\ \hline 7 \end{array}$</div>	<div>⑤ $2x^2 + 9x + 4$</div>
<div>$\begin{array}{r} 3 \times 1 \rightarrow 1 \\ 1 \times 4 \rightarrow 12 \\ \hline 13 \end{array}$</div> <div>$\begin{array}{r} 3 \times 2 \rightarrow 2 \\ 1 \times 2 \rightarrow 6 \\ \hline 8 \end{array}$</div>	
<div>⑥ $6x^2 + 7x - 3$</div> <div>$= \underline{(3x - 1)(2x + 3)}$</div> <div>$\begin{array}{r} 6 \times 3 \rightarrow 3 \\ 1 \times -1 \rightarrow -6 \\ \hline -3 \end{array}$ $\begin{array}{r} 6 \times -1 \rightarrow -1 \\ 1 \times 3 \rightarrow 18 \\ \hline 17 \end{array}$ $\begin{array}{r} 6 \times 1 \rightarrow 1 \\ 1 \times -3 \rightarrow -18 \\ \hline -17 \end{array}$ $\begin{array}{r} 6 \times -3 \rightarrow -3 \\ 1 \times 1 \rightarrow 6 \\ \hline 3 \end{array}$ $\begin{array}{r} 3 \times 1 \rightarrow 2 \\ 2 \times -3 \rightarrow -9 \\ \hline -7 \end{array}$ $\begin{array}{r} 3 \times -3 \rightarrow -6 \\ 2 \times 1 \rightarrow 1 \\ \hline -3 \end{array}$ $\begin{array}{r} 3 \times -1 \rightarrow 2 \\ 2 \times 3 \rightarrow 9 \\ \hline 7 \end{array}$ $\begin{array}{r} 3 \times 3 \rightarrow 6 \\ 2 \times -1 \rightarrow -3 \\ \hline 3 \end{array}$</div>	<div>⑥ $6x^2 + x - 2$</div>

1. たすき掛けを利用して、次の式を展開せよ。
Expand the following equation using cross multiplication.

2. たすき掛けを用いて因数分解せよ。
Factor the following equation using cross multiplication.

例題	問題
<div>① $(2x + 3)(x + 1)$</div> <div>$= 2x^2 + 5x + 3$</div> <div><div>23→3</div><div>11→2</div><div>5</div></div>	<div>① $(2x + 1)(x + 3)$</div>
<div>② $(2x + 1)(3x - 2)$</div> <div>$= 6x^2 - x - 2$</div> <div><div>21→3</div><div>3-2→-4</div><div>-1</div></div>	<div>② $(2x + 1)(4x - 3)$</div>
<div>③ $(2x - 1)(3x + 1)$</div> <div>$= 6x^2 - x - 1$</div> <div><div>2-1→-3</div><div>31→2</div><div>-1</div></div>	<div>③ $(2x - 1)(4x + 1)$</div>
<div>④ $(4x - 1)(2x - 1)$</div> <div>$= 8x^2 - 6x + 1$</div> <div><div>4-1→-2</div><div>2-1→-4</div><div>-6</div></div>	<div>④ $(3x - 1)(2x - 1)$</div>
<div>⑤ $(x + 2)(x + 3)$</div> <div>$= x^2 + 5x + 6$</div> <div><div>12→2</div><div>13→3</div><div>5</div></div>	<div>⑤ $(x + 1)(x + 3)$</div>
<div>⑥ $(x + 2)(x - 4)$</div> <div>$= x^2 - 2x - 8$</div> <div><div>12→2</div><div>1-4→-4</div><div>-2</div></div>	<div>⑥ $(x + 1)(x - 3)$</div>
<div>⑦ $(x - 2)(x - 4)$</div> <div>$= x^2 - 6x + 8$</div> <div><div>1-2→-2</div><div>1-4→-4</div><div>-6</div></div>	<div>⑦ $(x - 1)(x - 3)$</div>

例題	問題
<div>① $3x^2 + 7x + 2$</div> <div>$= (3x + 1)(x + 2)$</div> <div><div>32→2</div><div>11→3</div><div>5</div></div>	<div>① $5x^2 + 7x + 2$</div>
<div>② $2x^2 - 11x + 5$</div> <div>$= (2x - 1)(x - 5)$</div> <div><div>2-5→-5</div><div>1-1→-2</div><div>-7</div></div> <div><div>2-1→-1</div><div>1-5→-5</div><div>-11</div></div>	<div>② $4x^2 - 5x + 1$</div>
<div>③ $3x^2 - 7x - 6$</div> <div>$= (3x + 2)(x - 3)$</div> <div><div>31→1</div><div>1-6→-6</div><div>-17</div></div> <div><div>3-2→-2</div><div>13→3</div><div>7</div></div> <div><div>32→2</div><div>1-3→-3</div><div>-7</div></div>	<div>③ $2x^2 - x - 6$</div>
<div>④ $x^2 - 5x + 6$</div> <div>$= (x - 1)(x - 6)$</div> <div><div>1-6→-6</div><div>1-1→-1</div><div>-7</div></div> <div><div>1-2→-2</div><div>1-3→-3</div><div>-5</div></div>	<div>④ $x^2 - 5x + 4$</div>

1. たすき掛けを用いて因数分解せよ。
Factor the following equation using cross multiplication.

2. たすき掛けを用いて因数分解せよ。
Factor the following equation using cross multiplication.

れいだい

例題①

$3x^2 + 7x + 2 = (3x + 1)(x + 2)$

x^2 の係数は 3×1 定数は 2×1

$\begin{array}{r} (3x + 2) \\ 3 \times 2 \rightarrow 2 \\ 1 \times 1 \rightarrow 3 \\ \hline (x + 1) \quad 5 \end{array}$

$\begin{array}{r} (3x + 1) \\ 3 \times 1 \rightarrow 1 \\ 1 \times 2 \rightarrow 6 \\ \hline (x + 2) \quad 7 \end{array}$

もんだい

問題①

$5x^2 + 8x + 3 = (\quad)(\quad)$

x^2 の係数は 5×1 定数は 3×1

$\begin{array}{r} 5 \times 3 \rightarrow \\ 1 \times 1 \rightarrow \\ \hline \end{array}$

$\begin{array}{r} 5 \times 1 \rightarrow \\ 1 \times 3 \rightarrow \\ \hline \end{array}$

れいだい

例題②

$4x^2 - 5x + 1 = (4x - 1)(x - 1)$

x^2 の係数は $4 \times 1, 2 \times 2$ 定数は $(-1) \times (-1)$

$\begin{array}{r} (4x - 1) \\ 4 \times -1 \rightarrow -1 \\ 1 \times -1 \rightarrow -4 \\ \hline (x - 1) \quad -5 \end{array}$

$\begin{array}{r} (2x - 1) \\ 2 \times -1 \rightarrow -2 \\ 2 \times -1 \rightarrow -2 \\ \hline (2x - 1) \quad -4 \end{array}$

もんだい

問題②

$6x^2 - 5x + 1 = (\quad)(\quad)$

x^2 の係数は $6 \times 1, 3 \times 2$ 定数は $(-1) \times (-1)$

$\begin{array}{r} 6 \times -1 \rightarrow \\ 1 \times -1 \rightarrow \\ \hline \end{array}$

$\begin{array}{r} 3 \times -1 \rightarrow \\ 2 \times -1 \rightarrow \\ \hline \end{array}$

れいだい

例題③

$3x^2 - 5x - 2 = (3x + 1)(x - 2)$

x^2 の係数は 3×1 定数は $2 \times (-1), (-2) \times 1$

$\begin{array}{r} (3x + 2) \\ 3 \times 2 \rightarrow 2 \\ 1 \times -1 \rightarrow -3 \\ \hline (x - 1) \quad -1 \end{array}$

$\begin{array}{r} (3x - 1) \\ 3 \times -1 \rightarrow -1 \\ 1 \times 2 \rightarrow 6 \\ \hline (x + 2) \quad 5 \end{array}$

$\begin{array}{r} (3x - 2) \\ 3 \times -2 \rightarrow -2 \\ 1 \times 1 \rightarrow 3 \\ \hline (x + 1) \quad 1 \end{array}$

$\begin{array}{r} (3x + 1) \\ 3 \times 1 \rightarrow 1 \\ 1 \times -2 \rightarrow -6 \\ \hline (x - 2) \quad -5 \end{array}$

もんだい

問題③

$2x^2 - 5x - 3 = (\quad)(\quad)$

x^2 の係数は 2×1 定数は $3 \times (-1), (-3) \times 1$

$\begin{array}{r} 2 \times 3 \rightarrow \\ 1 \times -1 \rightarrow \\ \hline \end{array}$

$\begin{array}{r} 2 \times -1 \rightarrow \\ 1 \times 3 \rightarrow \\ \hline \end{array}$

$\begin{array}{r} 2 \times -3 \rightarrow \\ 1 \times 1 \rightarrow \\ \hline \end{array}$

$\begin{array}{r} 2 \times 1 \rightarrow \\ 1 \times -3 \rightarrow \\ \hline \end{array}$

れいだい

例題①

$x^2 + 5xy + 6y^2 = (x + 2y)(x + 3y)$

$\begin{array}{r} 1 \times 1 \rightarrow 1 \\ 1 \times 6 \rightarrow 6 \\ \hline 7 \end{array}$

$\begin{array}{r} 1 \times 2 \rightarrow 2 \\ 1 \times 3 \rightarrow 3 \\ \hline 5 \end{array}$

もんだい

問題①

$x^2 + 6xy + 8y^2 = (\quad)(\quad)$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

れいだい

例題②

$x^2 - xy - 2y^2 = (x - 2y)(x + y)$

$\begin{array}{r} 1 \times 2 \rightarrow 2 \\ 1 \times -1 \rightarrow -1 \\ \hline 1 \end{array}$

$\begin{array}{r} 1 \times -2 \rightarrow -2 \\ 1 \times 1 \rightarrow 1 \\ \hline -1 \end{array}$

もんだい

問題②

$x^2 - 2xy - 3y^2 = (\quad)(\quad)$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

れいだい

例題③

$x^2 - 6xy + 9y^2 = (x - 3y)^2$

$\begin{array}{r} 1 \times -1 \rightarrow -1 \\ 1 \times -9 \rightarrow -9 \\ \hline -10 \end{array}$

$\begin{array}{r} 1 \times -3 \rightarrow -3 \\ 1 \times -3 \rightarrow -3 \\ \hline -6 \end{array}$

もんだい

問題③

$x^2 - 4xy + 4y^2 = (\quad)^2$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

れいだい

例題④

$x^2 - 25y^2 = (x - 5y)(x + 5y)$

$\begin{array}{r} 1 \times -1 \rightarrow -1 \\ 1 \times 25 \rightarrow 25 \\ \hline 24 \end{array}$

$\begin{array}{r} 1 \times -5 \rightarrow -5 \\ 1 \times 5 \rightarrow 5 \\ \hline 0 \end{array}$

もんだい

問題④

$x^2 - 4y^2 = (\quad)(\quad)$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

れいだい

例題⑤

$5x^2 + 11xy + 2y^2 = (5x + y)(x + 2y)$

$\begin{array}{r} 5 \times 2 \rightarrow 2 \\ 1 \times 1 \rightarrow 5 \\ \hline 7 \end{array}$

$\begin{array}{r} 5 \times 1 \rightarrow 1 \\ 1 \times 2 \rightarrow 10 \\ \hline 11 \end{array}$

もんだい

問題⑤

$2x^2 + 5xy + 3y^2 = (\quad)(\quad)$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

$\begin{array}{r} \times \rightarrow \\ \rightarrow \end{array}$

1. たすき掛けを用いて因数分解せよ。
Factor the following equation using cross multiplication.

2. たすき掛けを用いて因数分解せよ。
Factor the following equation using cross multiplication.

れいだい
例題①

$4x^2 + 5x + 1 = (4x + 1)(x + 1)$

4

1

→ 1

1

1

→ 4

2

1

→ 2

2

1

→ 2

5

4

もんだい
問題①

$6x^2 + 7x + 1 = () ()$

→

→

→

→

れいだい
例題②

$3x^2 - x - 2 = (3x + 2)(x - 1)$

3

2

→ 2

1

-1

→ -3

3

-1

→ -1

1

2

→ 6

-1

5

3

-2

→ -2

1

1

→ 3

3

1

→ 1

1

-2

→ -6

1

-5

もんだい
問題②

$2x^2 - x - 3 = () ()$

→

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→

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れいだい
例題③

$8x^2 - 6x + 1 = (4x - 1)(2x - 1)$

8

-1

→ -1

1

-1

→ -8

4

-1

→ -2

2

-1

→ -4

-9

-6

もんだい
問題③

$9x^2 - 10x + 1 = () ()$

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れいだい
例題④

$4x^2 - 4xy + y^2 = (2x - y)^2$

4

-1

→ -1

1

-1

→ -4

2

-1

→ -2

2

-1

→ -2

-5

-4

もんだい
問題④

$9x^2 - 6xy + y^2 = ()^2$

→

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→

もんだい
問題①

$10x^2 + 7x + 1 = () ()$

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もんだい
問題②

$x^2 + 7x + 10 = () ()$

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もんだい
問題③

$3x^2 - 2x - 5 = () ()$

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もんだい
問題④

$2x^2 - 5x - 7 = () ()$

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もんだい
問題⑤

$4x^2 - 4x + 1 = () ()$

→

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もんだい
問題⑥

$3x^2 - 4x + 1 = () ()$

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もんだい
問題⑦

$x^2 + 2xy - 3y^2 = () ()$

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もんだい
問題⑧

$25x^2 - y^2 = () ()$

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→

