

例13 P16

$$\begin{aligned} (1) A &= (x+2) \times (x+3) - 1 \\ &= x^2 + 5x + 6 - 1 \\ &= \underline{x^2 + 5x + 5} \end{aligned}$$

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

例14 P16

$$(1) 3x^2 - 4x + 5 = B \times (x-1) + 4$$

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

両辺を $(x-1)$ で割る

$$\begin{array}{r} 3x - 1 \\ x-1 \overline{) 3x^2 - 4x + 1} \\ \underline{3x^2 - 3x} \\ -x + 1 \\ \underline{-x + 1} \\ 0 \end{array}$$

$$\underline{B = 3x - 1}$$

$$(2) x^3 - 2x^2 + 5x - 3 = B \times (x-2) - 2x + 7$$

$$B \times (x-2) = x^3 - 2x^2 + 5x - 10$$

両辺を $x-2$ で割る

$$\begin{array}{r} x^2 + 5 \\ x-2 \overline{) x^3 - 2x^2 + 5x - 10} \\ \underline{x^3 - 2x^2} \\ 5x - 10 \\ \underline{5x - 10} \\ 0 \end{array}$$

$$\underline{B = x^2 + 5}$$

例15 P17

$$(1) \frac{5\sqrt{a}b^2}{2\sqrt{a^3}b^2} = \underline{\frac{5b^2}{2a^2}}$$

$$\begin{aligned} (2) \frac{x^2 - 9}{x^2 + 7x + 12} &= \frac{(x-3)\cancel{(x+3)}}{(x+4)(\cancel{x+3})} \\ &= \underline{\frac{x-3}{x+4}} \end{aligned}$$

$$\begin{aligned} (3) \frac{x^2 - 2x - 3}{2x^2 - 7x + 3} &= \frac{(x+1)\cancel{(x-3)}}{(2x-1)(\cancel{x/3})} \\ &= \frac{x+1}{2x-1} \end{aligned}$$