

教科書17ページ 練習12

$$(1) \frac{6x^4y^2}{2x^2y^3} = \frac{\cancel{2} \cdot 3 \cdot \cancel{x} \cdot \cancel{x} \cdot x \cdot x \cdot \cancel{y} \cdot \cancel{y}}{\cancel{2} \cdot \cancel{x} \cdot \cancel{x} \cdot \cancel{y} \cdot \cancel{y} \cdot y} = \frac{3x^2}{y} \quad (\text{答})$$

$$(2) \frac{3x-9}{x^2-x-6} = \frac{3(\cancel{x-3})}{(\cancel{x-3})(x+2)} = \frac{3}{x+2} \quad (\text{答})$$

$$(3) \frac{x^2-7x+10}{2x^2-x-6} = \frac{(x-5)(\cancel{x-2})}{(2x+3)(\cancel{x-2})} = \frac{x-5}{2x+3} \quad (\text{答})$$

$$\begin{array}{r} 2 \quad 3 \rightarrow 3 \\ 1 \quad -2 \rightarrow -4 \\ \hline 2 \quad -6 \quad -1 \\ x^2 \qquad \qquad x \end{array}$$

$$(4) \frac{x^2-1}{x^3-1} = \frac{(\cancel{x-1})(x+1)}{(\cancel{x-1})(x^2+x+1)} = \frac{x+1}{x^2+x+1} \quad (\text{答})$$

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$$(1) \frac{\cancel{2x-1}}{\cancel{x+3}} \times \frac{\cancel{x+3}}{(x+2)(\cancel{2x-1})} = \frac{1}{x+2} \quad (\text{答})$$

$$(2) \frac{3x-2}{(x+1)^2} \div \frac{(3x-2)(x+4)}{(x+1)(x-2)} = \frac{\cancel{3x-2}}{(x+1)^2} \times \frac{(x+1)(x-2)}{(\cancel{3x-2})(x+4)}$$

$$= \frac{x-2}{(x+1)(x+4)} \quad (\text{答})$$

$$(3) \frac{x}{x+3} \times \frac{x^2+2x-3}{x^2+x} = \frac{\cancel{x}}{\cancel{x+3}} \times \frac{(\cancel{x+3})(x-1)}{\cancel{x}(x+1)}$$

$$= \frac{x-1}{x+1} \quad (\text{答})$$

$$(4) \frac{x^2-1}{x-2} \div \frac{x^3+1}{x^2+x-6} = \frac{x^2-1}{x-2} \times \frac{x^2+x-6}{x^3+1}$$

$$= \frac{(\cancel{x+1})(x-1)}{\cancel{x-2}} \times \frac{(x+3)(\cancel{x-2})}{(\cancel{x+1})(x^2-x+1)}$$

$$= \frac{(x-1)(x+3)}{x^2-x+1} \quad (\text{答})$$

練習14

$$(1) \frac{x^2-2}{x-2} - \frac{2}{x-2} = \frac{x^2-2-2}{x-2} = \frac{x^2-4}{x-2}$$

$$= \frac{(\cancel{x-2})(x+2)}{\cancel{x-2}} = x+2 \quad (\text{答})$$

$$(2) \frac{x}{x^2+x-2} + \frac{2}{x^2+x-2} = \frac{x+2}{x^2+x-2}$$

$$= \frac{\cancel{x+2}}{(\cancel{x+2})(x-1)} = \frac{1}{x-1} \quad (\text{答})$$