

&lt;解答&gt;

次の計算をせよ。

$$\begin{aligned}
 (1) \quad & \frac{2x+4}{x^2-1} \times \frac{x-1}{x^2+2x} \\
 &= \frac{2(\cancel{x+2})}{(x+1)(\cancel{x-1})} \times \frac{\cancel{x-1}}{x(\cancel{x+2})} \\
 &= \frac{2}{x(x+1)}
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad & \frac{x^2+x}{x^2+x-12} \div \frac{x+1}{x^2+3x-4} \\
 &= \frac{x^2+x}{x^2+x-12} \times \frac{x^2+3x-4}{x+1} \\
 &= \frac{x(\cancel{x+1})}{(\cancel{x+4})(x-3)} \times \frac{(\cancel{x+4})(x-1)}{\cancel{x+1}} \\
 &= \frac{x(x-1)}{x-3}
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad & \frac{3x-1}{x+4} + \frac{9-x}{x+4} \\
 &= \frac{(3x-1)+(9-x)}{x+4} \\
 &= \frac{2x+8}{x+4} \\
 &= \frac{2(\cancel{x+4})}{\cancel{x+4}} \\
 &= 2
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad & \frac{4}{x+1} - \frac{3}{x+2} \\
 &= \frac{4(x+2)-3(x+1)}{(x+1)(x+2)} \\
 &= \frac{4x+8-3x-3}{(x+1)(x+2)} \\
 &= \frac{x+5}{(x+1)(x+2)}
 \end{aligned}$$

(参) 通分

$$= \frac{4(x+2)}{(x+1)(x+2)} - \frac{3(x+1)}{(x+1)(x+2)}$$