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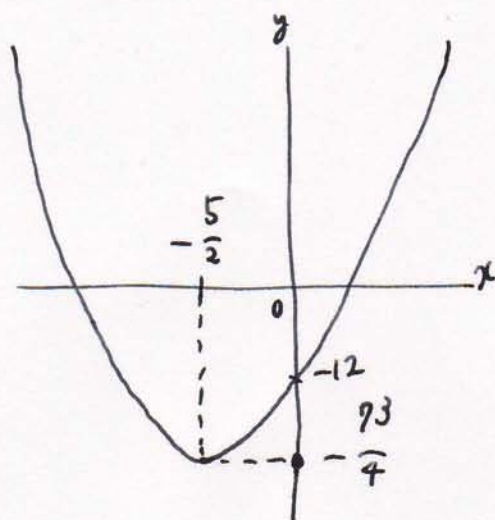
## 解析小問

- $y = x^2 + 5x - 12$  のグラフと値域?
- $y = 4x - 3$  と  $(b, -3)$  について平行移動した関数?
- $y = \frac{5x+1}{x-2}$  のグラフと値域?

$$1. \quad y = (x^2 + 5x + \frac{25}{4}) - \frac{25}{4} - 12$$

$$= (x + \frac{5}{2})^2 - \frac{73}{4}$$

$$\therefore y + \frac{73}{4} = (x + \frac{5}{2})^2$$

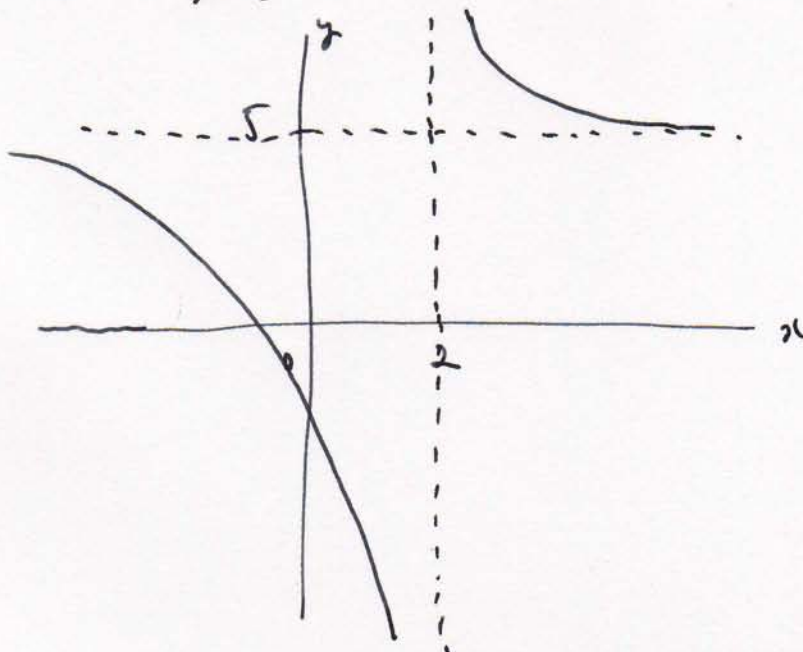


値域は  $y \geq -\frac{73}{4}$ .

$$2. \quad f(x) = 4x - 3 \quad \text{と} \quad x < z \quad \text{について} \quad y + 3 = f(x - b)$$

$$\therefore y + 3 = 4(x - b) - 3 \Rightarrow y = \underline{\underline{4x - 30}}$$

$$3. \quad y = \frac{5x+1}{x-2} = 5 + \frac{11}{x-2} \quad \therefore y - 5 = \frac{11}{x-2}$$



値域は  $y \neq 5$