

(1.5) ⑦ a)  $|x-7| \geq 2$   $E(7, 2) = (5, 9)$   $5 < x < 9$   ~~$5 < x < 9$~~

↳  $x \in (-\infty, 5] \cup [9, +\infty)$

b)  $|x+4| < 2$   $E(-4, 2) = (-6, -2)$   $-6 < x < -2$   ~~$-6 < x < -2$~~

c)  $|x-7| - |2x+5| = \begin{cases} x-7 - |2x+5| & \text{si } x-7 \geq 0 \rightarrow x \geq 7 \\ -x+7 - |2x+5| & \text{si } x-7 < 0 \rightarrow x < 7 \end{cases} = \begin{cases} \end{cases}$

$$= \begin{cases} \left. \begin{array}{l} x-7-2x-5 & \text{si } x \geq 7 \\ x-7+2x+5 & \text{si } x \geq 7 \end{array} \right\} \begin{array}{l} 2x+5 \geq 0 \quad x \geq -5/2 \\ 2x+5 < 0 \quad x < -5/2 \end{array} \left. \begin{array}{l} -x-12 \quad x \geq 7 \\ 3x-2 \quad \cancel{x} \end{array} \right\} \\ \left. \begin{array}{l} -x+7-2x-5 \\ -x+7+2x+5 \end{array} \right\} \begin{array}{l} x < 7 \\ 2x+5 \geq 0 \quad x \geq -5/2 \\ x < 7 \\ 2x+5 < 0 \quad x < -5/2 \end{array} \left. \begin{array}{l} -3x+2 \quad -5/2 \leq x < 7 \\ x+12 \quad x < -5/2 \end{array} \right\} \end{cases}$$

(1) ⑧  $\log A = \log 1000 + \log x^5 - \log \sqrt[7]{x-2} + \log y^2 - \log \left(\frac{z}{y}\right)^4$

$$\log A = \log \frac{1000 \cdot x^5 \cdot y^2}{\sqrt[7]{x-2} \cdot \frac{z^4}{y^4}} \rightarrow A = \frac{1000 x^5 y^6}{z^4 \sqrt[7]{x-2}}$$