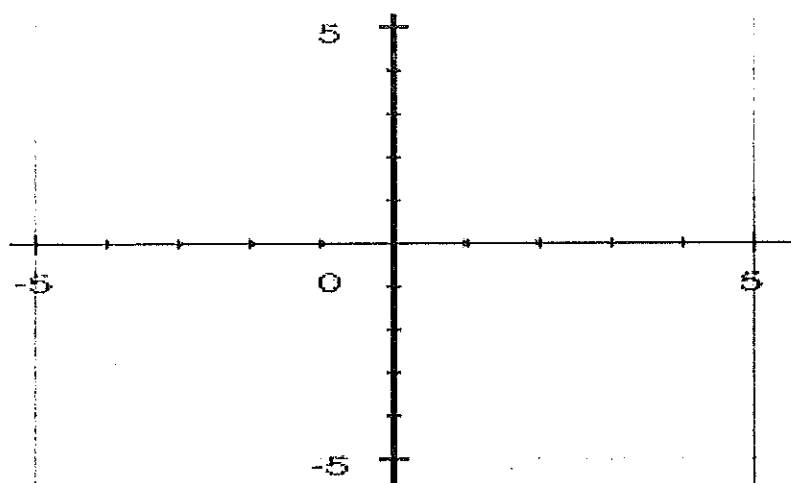


5. (30 points) For $f(x) = \begin{cases} \frac{1}{3}x+4, & \text{for } x \leq 3 \\ 2x-5, & \text{for } x > 3 \end{cases}$

(1) Draw the graph of $f(x)$



(2) $f(3)$

(3) $\lim_{x \rightarrow 3^-} f(x)$

(4) $\lim_{x \rightarrow 3^+} f(x)$

(5) Use the definition of continuity, show that the function $f(x)$ is continuous at $x = 3$ or not?