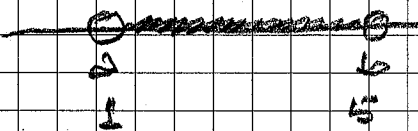


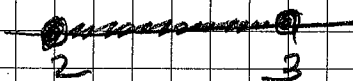
INTERVALS

Open $(a, b) = \{ x \mid a < x < b \}$



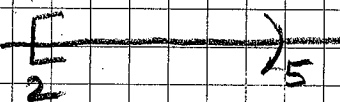
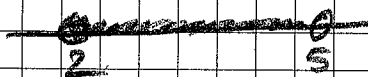
Ex: $(1, 5)$

Closed $[2, 3] = \{ x \mid 2 \leq x \leq 3 \}$

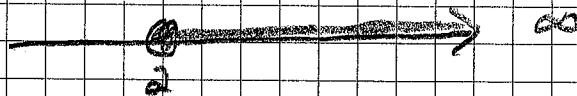


Semi-Open

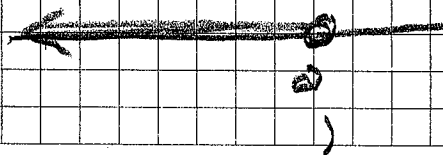
$[2, 5) = \{ x \mid 2 \leq x < 5 \}$

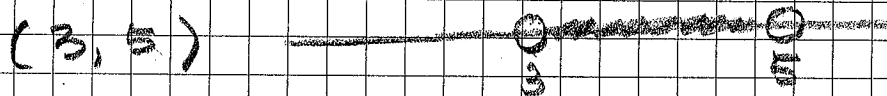
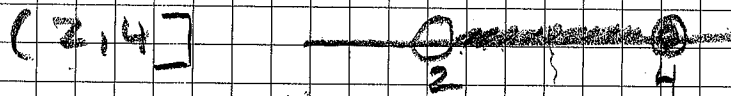


$[2, \infty) = \{ x \mid x \geq 2 \}$

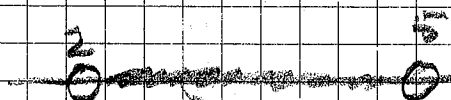


$(-\infty, 2) = \{ x \mid x < 2 \}$

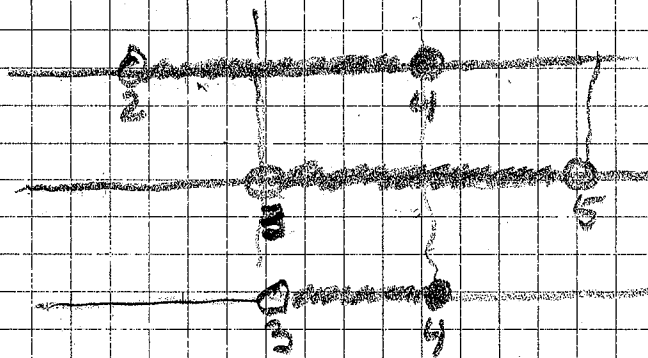


OPERATIONS WITH INTERVALSUNION

$$(2, 4] \cup (3, 5) = \{x \mid 2 < x < 5\}$$

INTERSECTION

$$(2, 4] \cap (3, 5) = (3, 4]$$



$$= \{x \mid 3 < x \leq 4\}$$