3: a: $C \wedge \neg D$
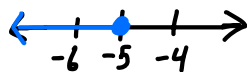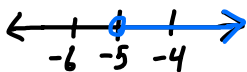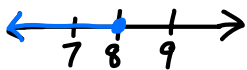
b: $C \rightarrow D$

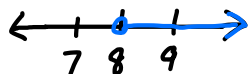c: $(P \rightarrow R) \wedge (R \rightarrow P)$

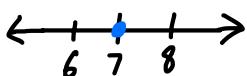**4:**

a: $x > -5$ (original) $x \leq -5$ (Negation)

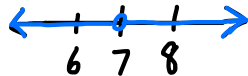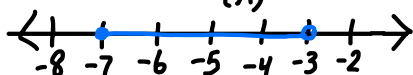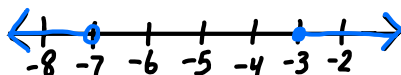b: $x \leq 8$ (original) $x > 8$ (Negation)

c: $x = 7$ (original) $x < 7 \overset{(\vee)}{or} x > 7$ (Negation)

d: $-7 \leq x < -3$ (original) $x < -7 \overset{(\vee)}{or} x \geq -3$ (Negation)

$x \geq -7$ and $x < -3$
$\overset{(\wedge)}{}$

e: $|x| > 3$ (original) $|x| \leq 3$ (Negation)

$x < -3 \overset{(\vee)}{or} x > 3$ $-3 \leq x \leq 3$ $x \geq -3 \overset{(\wedge)}{and} x \leq 3$