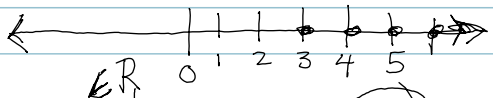
Lesson 117: Letter symbols for sets; Set builder notation.

Reals = $\mathbb{R}$ = R Integers = J
Complex = C Rationals = Q
Whole numbers = W Irrationals = P
$\in$ = is an element of | = such as

1.) Graph $A = \{x \in J \mid x+2 > 4\}$

$x+2>4$ Domain is Integers

$x > 2$



2.) Graph the solution: $\{(x,y) \mid y > x+2$ and $y < -x\}$

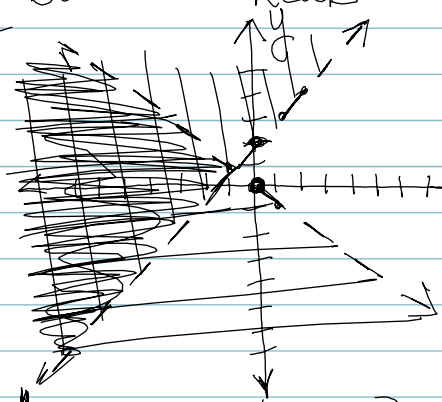
Graph $\begin{cases} y > x+2 \\ y < -x \end{cases}$

Domain = Reals

Hi=1

$y > x+2$ ← y-intercept

$y < -x$ (+0)



3.) Graph $B = \{x \in R \mid x^2 \geq -4x - 3\}$

$x^2 \geq -4x - 3$

$x^2 + 4x + 3 \geq 0$

$(x+3)(x+1) \geq 0$

$x = -3, -1$