

Math 5a, homework 22.

1. Draw a coordinate axis and show all  $x$  which comply with the condition:

Example:  $-1 \leq x < 4$



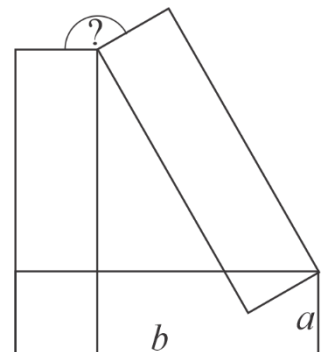
- a.  $x > 5$ ;      b.  $x \leq 15$ ;      c.  $-7 < x \leq 10$

2. Solve the inequalities:

a.  $2x > 6$ ;      b.  $3y - 2 < 13$ ;       $-x + 3 > 5$

3. There are two kinds of loose-leaf tea in the store, one is \$8 per pound, and the other is \$5 per pound. How should the store owner mix them so that the blend would be \$6 per pound?

4. Three congruent rectangles are positioned as shown in the picture. What is the angle? (To draw the nice picture, you have to use the ratio of the sides  $0.27$ ,  $a = 0.27b$ )



5. 12% of boys and 8% of girls play in the school orchestra. What percentage of all students play in the school orchestra if boys make up  $\frac{3}{5}$  of all students?
6. Prove that the numbers  $3^{33}$ ,  $3^{333}$ ,  $3^{3333}$  end with the same digit.