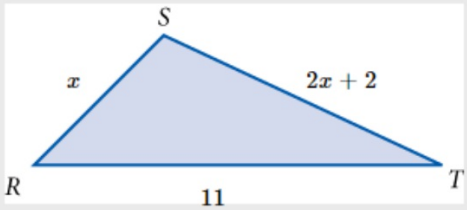
The triangle inequality states that the sum of any two sides of a triangle must be greater than the third side.



$t+r>s$

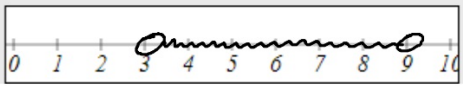
$t+s>r$

$r+s>t$

$3<x<9$

Use the three inequalities, which must be true based on the sides of the triangle, to write a compound inequality. Then graph the results.

3 $< x <$ 9



$x+2x+2>11$

$3x+2>11$

$3x>9$

$x>3$

$x+11>2x+2$

$11>x+2$

$9>x$

$2x+2+11>x$

$2x+13>x$

$-x \quad -x$

$x+13>0$

$x>-13$

List the angles of ΔABC from smallest to largest.

A (-3, -3), B(3, -1), and C (-1, 4)

$AB = \sqrt{(3-(-3))^2+(-1-(-3))^2}$

$= \sqrt{6^2+2^2}$

$= \sqrt{36+4} = \sqrt{40}$

$BC = \sqrt{(3-(-1))^2+(-1-4)^2}$

$\sqrt{(4)^2+(-5)^2}$

$\sqrt{16+25}$

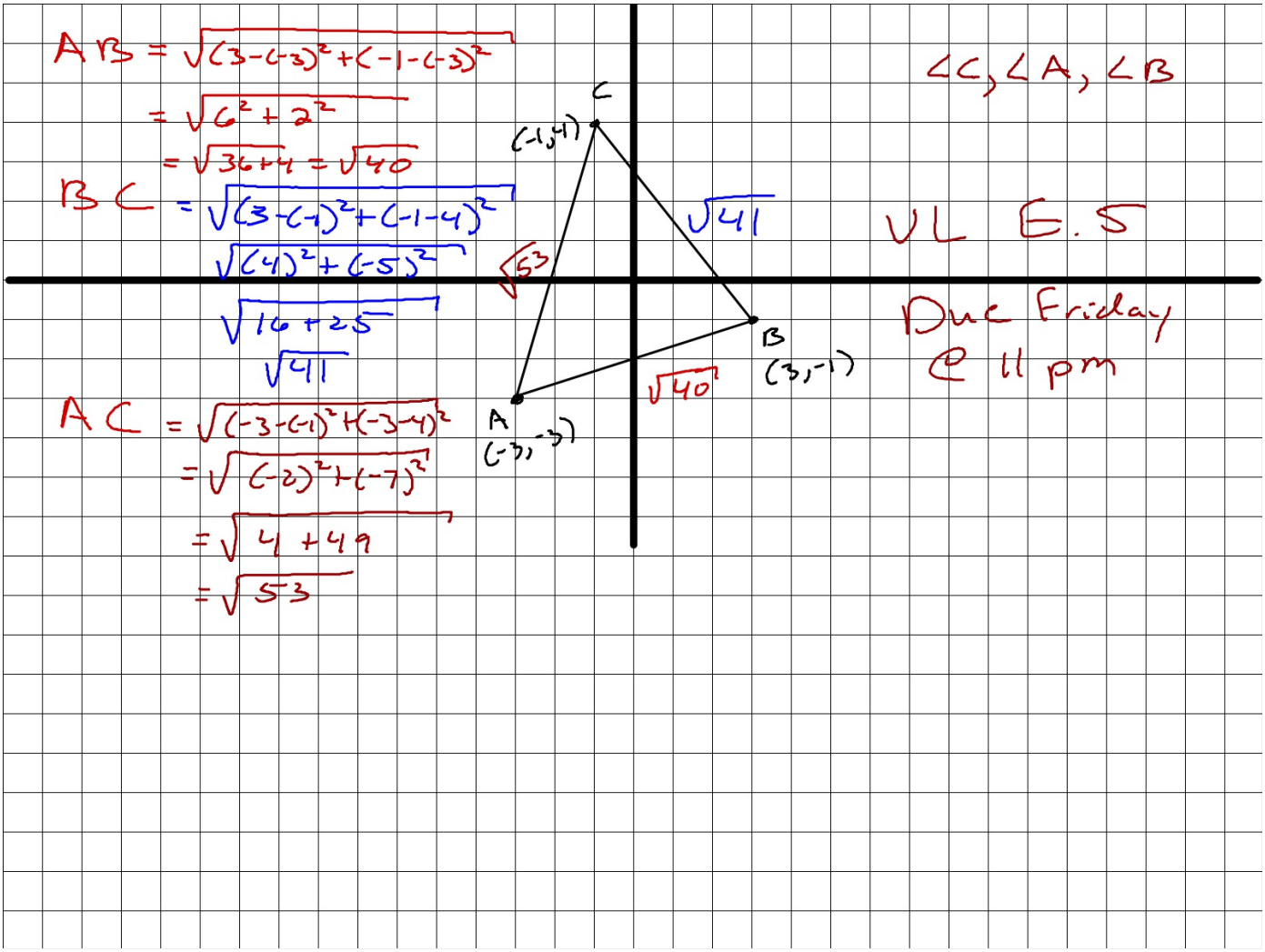
$\sqrt{41}$

$AC = \sqrt{(-3-(-1))^2+(-3-4)^2}$

$= \sqrt{(-2)^2+(-7)^2}$

$= \sqrt{4+49}$

$= \sqrt{53}$



∠C, ∠A, ∠B

VL 6.5

Due Friday @ 11 pm