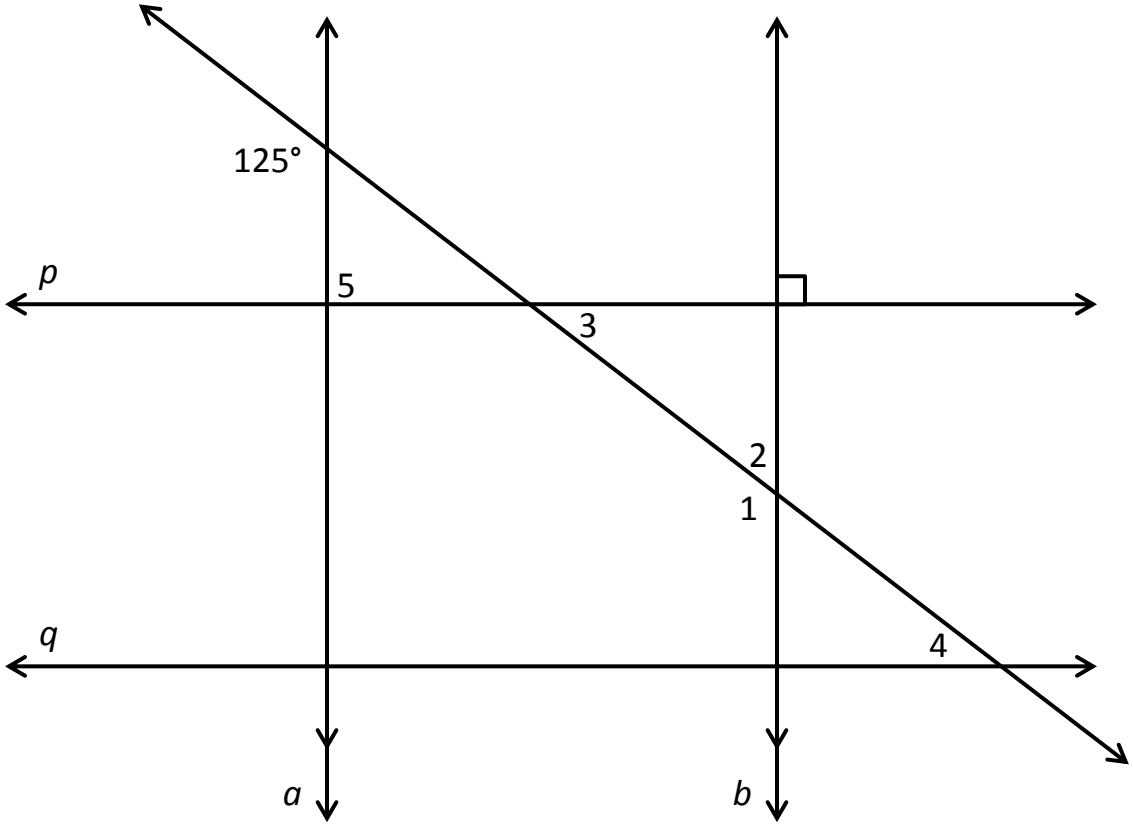
Geometry – Ch3 Performance Task **Name: _____ Group# _____**

Part 1: In the diagram below, line *a* is parallel to line *b*. For lines *p* and *q* to be parallel, what is the measure of angle 4? State the measure of each angle in the diagram and write the name of the definition or theorem that led you know this to be true. (Hint: You do not have to solve the angles in numerical order.)



m∠1 = _____ because _____

m∠2 = _____ because _____

m∠3 = _____ because _____

m∠4 = _____ because _____

m∠5 = _____ because _____

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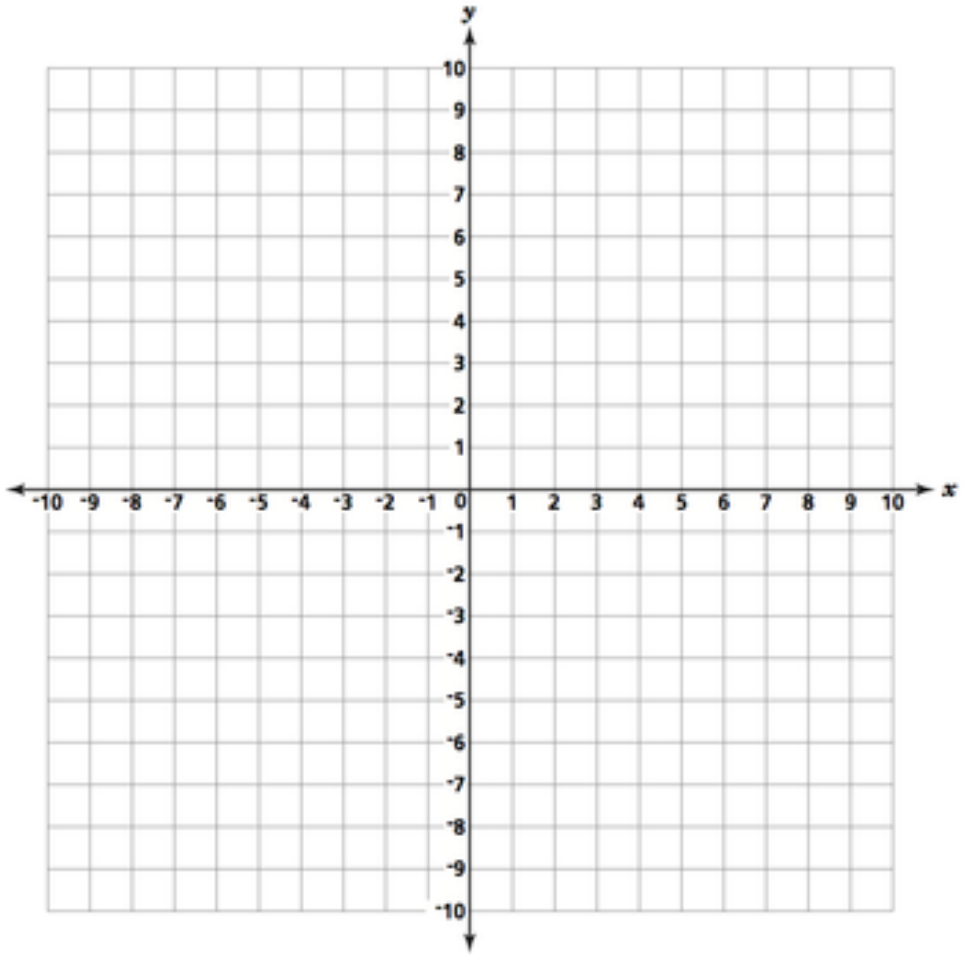
Part 2: $\overleftrightarrow{AB}$ contains points A (-6, -1) and B (1, 4). $\overleftrightarrow{CD}$ contains point D (7, 2). If ∠ABC ≅ ∠ BCD and m∠ABC = 90°, what is the equation of $\overleftrightarrow{CD}$? Graph the points, draw the lines, and show your work. To get full credit, write the equation of $\overleftrightarrow{CD}$ in point-slope form, standard form, ***and*** slope-intercept form.



SHOW YOUR WORK: