**Geometry Honors Ch 3 CW WS**

**DO NOT MARK THIS SHEET**

**DO ALL WORK AND DRAW ALL DIAGRAMS ON YOUR OWN PAPER**

1. Find the equation of the perpendicular bisector of the segment with endpoints of (4, 9) and ( 10, -1).

1. Find the equation of the line with an x intercept of –3 and y intercept of 2.

1. Find the value of a so that 6x + ay = 10 is perpendicular to y = (4/3)x + 2.

1. Let *A*(4, 2), *B*(–4, –2), and *C*(*x*, *y*) be three points in the coordinate plane.
	1. Find the slopes of *AC* and *BC* .
	2. Suppose *AC* ⊥ *BC*  Write and simplify an equation involving *x* and *y*.
	3. Describe the set of points *C* such that *AC* ⊥ *BC* .

1. A line passes through the points (3*k*, 6*k* −5) and (−1, −7) and has *y*-intercept of −5. Find the value of *k* and the equation of the line.

1. If *UV* , *WX* , and *YZ* are all parallel, find the measure of each angle in terms of *x* and *y*
	1. ∠ *VXW* **b.** ∠ *WXZ* **c.** ∠ *VXZ*



1. Find *x* and *y* such that *p* ║ *q*, *q* ║ *r*, and *p* ║ *r*.



8.

*m*∠ *FED* = *m*∠ *GCA* = 45°

# GIVEN: *CA**ED*

# PROVE: *EF CG*



1. In the diagram, *m* || *n*. Find the value of *x*.



*Explain* how you obtained your answer.

1. **GIVEN:** *g* || *h*, ∠1 and ∠2 are supplementary **PROVE**: *p* || *r*