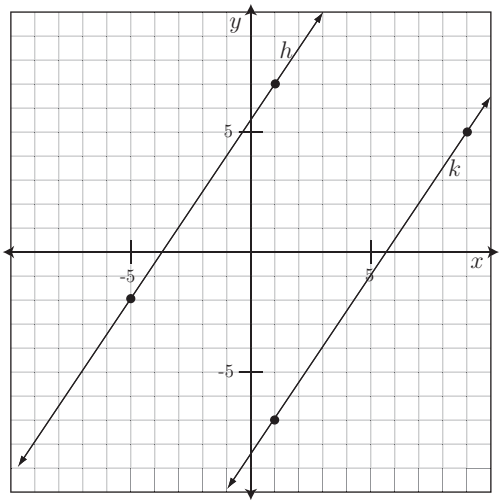
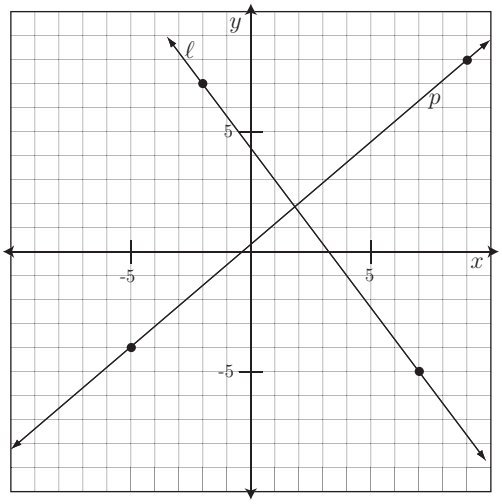
3.5 More Notes

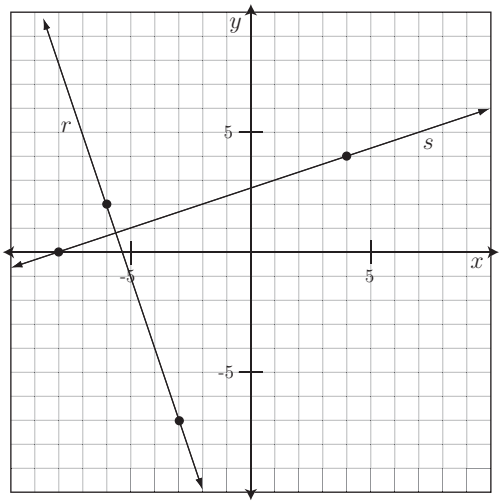
1. Are the lines h and k graphed below parallel? Explain.



2. Are the lines ℓ and p graphed below perpendicular? Explain.



3. Are the lines r and s graphed below perpendicular? Explain.



4. Suppose line f has the table below.

x	-5	-2	1	4	7
y	11	4	-3	-10	-17

If line g is perpendicular to f, complete the table below for g.

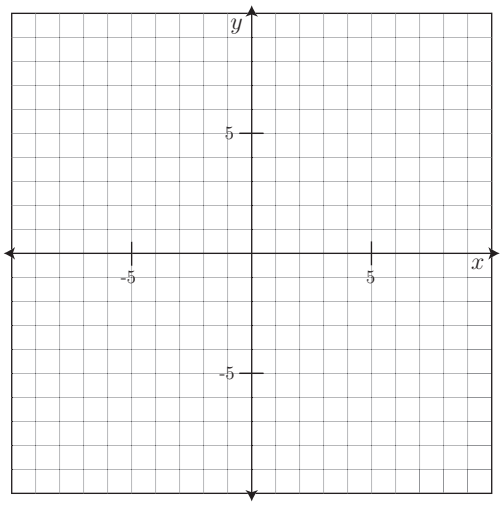
x			-2		
y			5		

5. Use the graph shown on the right to do the following.

(a) Graph the line that passes through the points $(-9, -4)$ and $(2, 6)$.

(b) Graph the line that passes through the points $(-1, 5)$ and $(4, -1)$.

(c) Are the lines in (a) and (b) perpendicular? Explain.

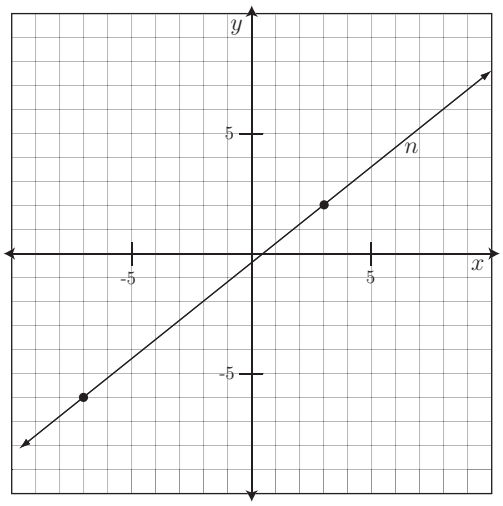


6. Use the graph shown on the right to do the following.

(a) Plot the point $(-5, 7)$.

(b) Graph the line that passes through the point $(-5, 7)$ and is perpendicular to the line n.

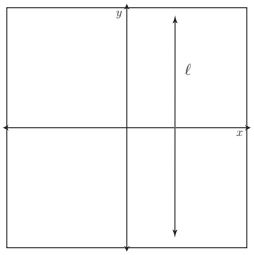
(c) How did you guarantee the line you graphed was perpendicular to n?



7. (a) Sketch and label a line q parallel to the line, ℓ graphed to the right.

(b) Then sketch and label a line w perpendicular to ℓ.

(c) Give possible equations for your graphs of q and w.



8. Jerome leaves his house at 10:00 AM and checks the odometer on his car which reads 42,655 miles. He gets in the car and drives until 1:00 PM. When he checks the odometer again it now reads 42,847 miles. What was Jerome's average speed?

9. Alice gets in a cab and tells the cab driver where to take her. She notices the meter in front and sees that after they have driven 3 miles, she owes \$8.10. Later she sees that after they have driven 7 miles, she owes \$15.30. How much is Alice getting charged per mile?