Geometry **HW #_____** **Name_____**

Sections 13-1, 13-2, 13-3, 13-5

Date_____Per.____ Col._____

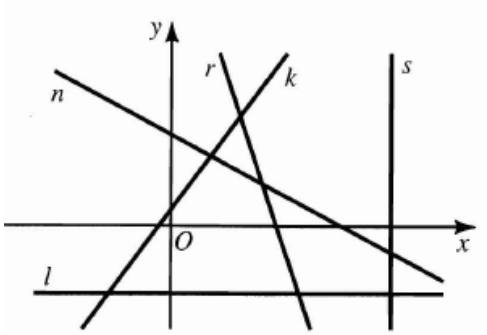
1. Name each line in the figure whose slope is:

a. positive

b. negative

c. zero

d. not defined

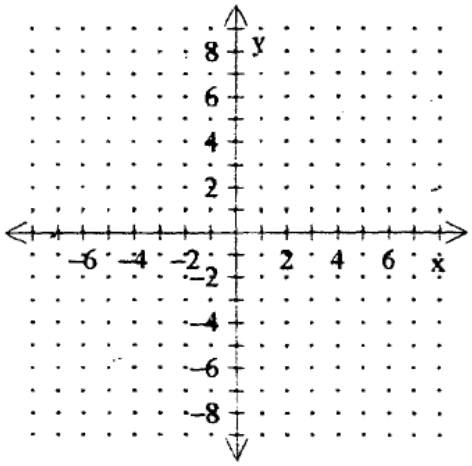


Find the slope of the line through each pair of points. If slope is not defined, write "not defined".

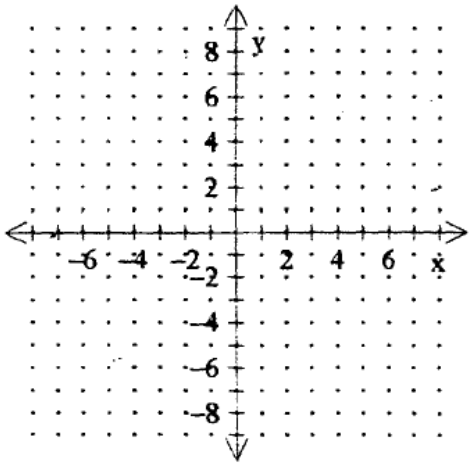
2. (1, 2) and (-2, -5) **3. (3, 3) and (3, 7)** **4. (4, -6) and (-6, -2)**

Locate point P on each graph and use the slope to find two other points on the line.

5. *P*(-2, 1); slope = $\frac{1}{3}$



6. *P*(2, 4); slope = $\frac{-3}{2}$



7. Give the slope of the line that is perpendicular to the line whose slope is given.

a. -2 **b.** $\frac{4}{5}$ **c. slope not defined** **d.** $\frac{1}{7}$

8. The slopes of 2 lines are given. Are the lines parallel, perpendicular, or neither?

a. $\frac{-3}{4}, \frac{3}{-4}$ **b. 4, -4** **c.** $\frac{2}{7}, \frac{-7}{2}$

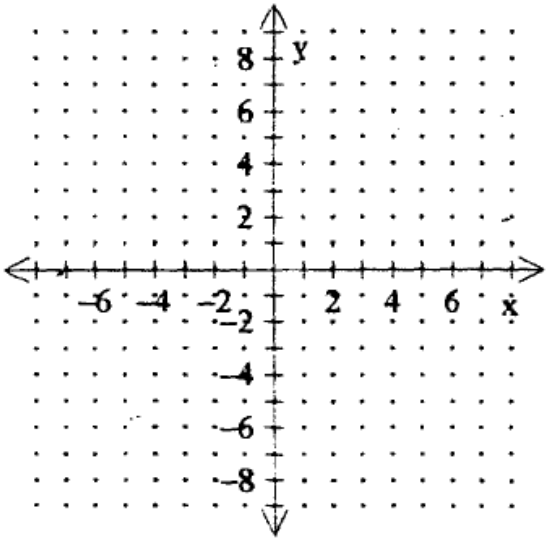
9. Given points *A*(3, -4) and *B*(5, -8)

a. Find the length of $\overline{AB}$ in simplest form.

b. Find the midpoint of $\overline{AB}$.

10. *M*(-5, 6) is the midpoint of $\overline{CD}$. If *C* is (12, -4), find point *D*.

11. Graph quadrilateral *EFGH* with vertices *E*(-4, 1), *F*(2, 3), *G*(4, 9), and *H*(-2, 7).



a. Show that *EFGH* is a rhombus.

b. Use slopes to show that the diagonals are perpendicular.