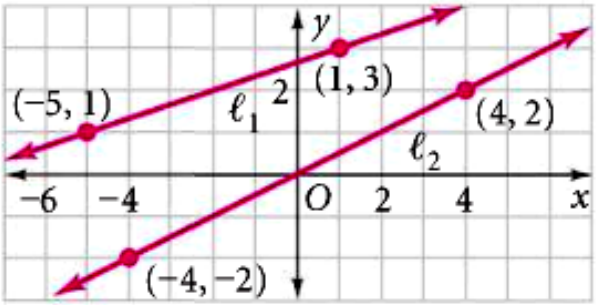
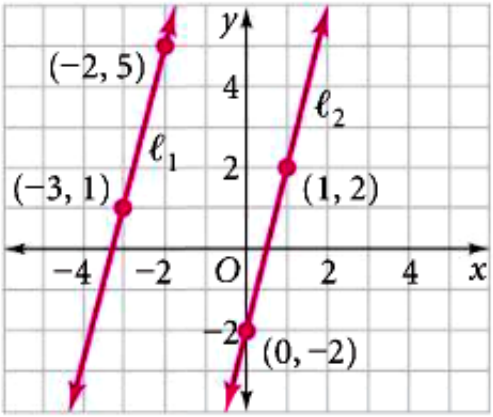
Name:_____Dat:_____Per:_____

In Exercises , are lines ℓ_1 and ℓ_2 parallel? Explain, using slope.

1.



2.



Are the lines parallel? Explain.

3. $y = \frac{3}{4}x - 10$

$y = \frac{3}{4}x + 2$

4. $3x + 4y = 12$

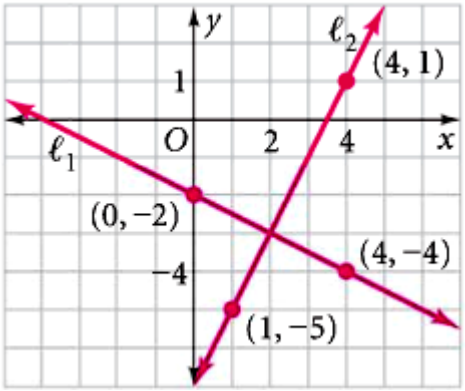
$6x + 2y = 6$

Write an equation for the line parallel to $\overleftrightarrow{AB}$ that contains point *C*.

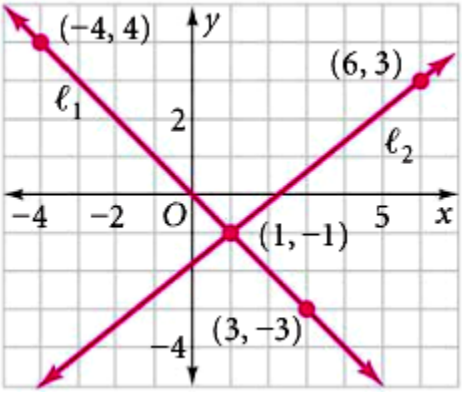
5. $\overleftrightarrow{AB}: y = -2x + 1, C(0, 3)$

Are lines ℓ_1 and ℓ_2 perpendicular? Explain using slope.

6.



7.



Write an equation for the line perpendicular to $\overleftrightarrow{MN}$ that contains point *P*.

8. $\overleftrightarrow{MN}: y = \frac{1}{2}x - 5, P(4, 0)$

9. **Multiple Choice** Which line is perpendicular to $3y + 2x = 12$?

(A) $6x - 4y = 24$

(B) $y + 3x = -2$

(C) $2x + 3y = 6$

(D) $y = -2x + 6$

10.

What is the slope of the graph at the right?

(A) $-\frac{5}{3}$ (B) $-\frac{3}{5}$ (C) $\frac{3}{5}$ (D) $\frac{5}{3}$