

Exercise 1.3

1. On graph paper draw axes with values of x and y between -3 and 10 , and plot the following points:

$P(4, 0)$, $Q(-2, 9)$, $R(5, 8)$, $S(-1, -2)$

Hence find the coordinates of the point of intersection of the line passing through P and Q , and the line passing through R and S .

4. For the line $3x - 5y = 8$,

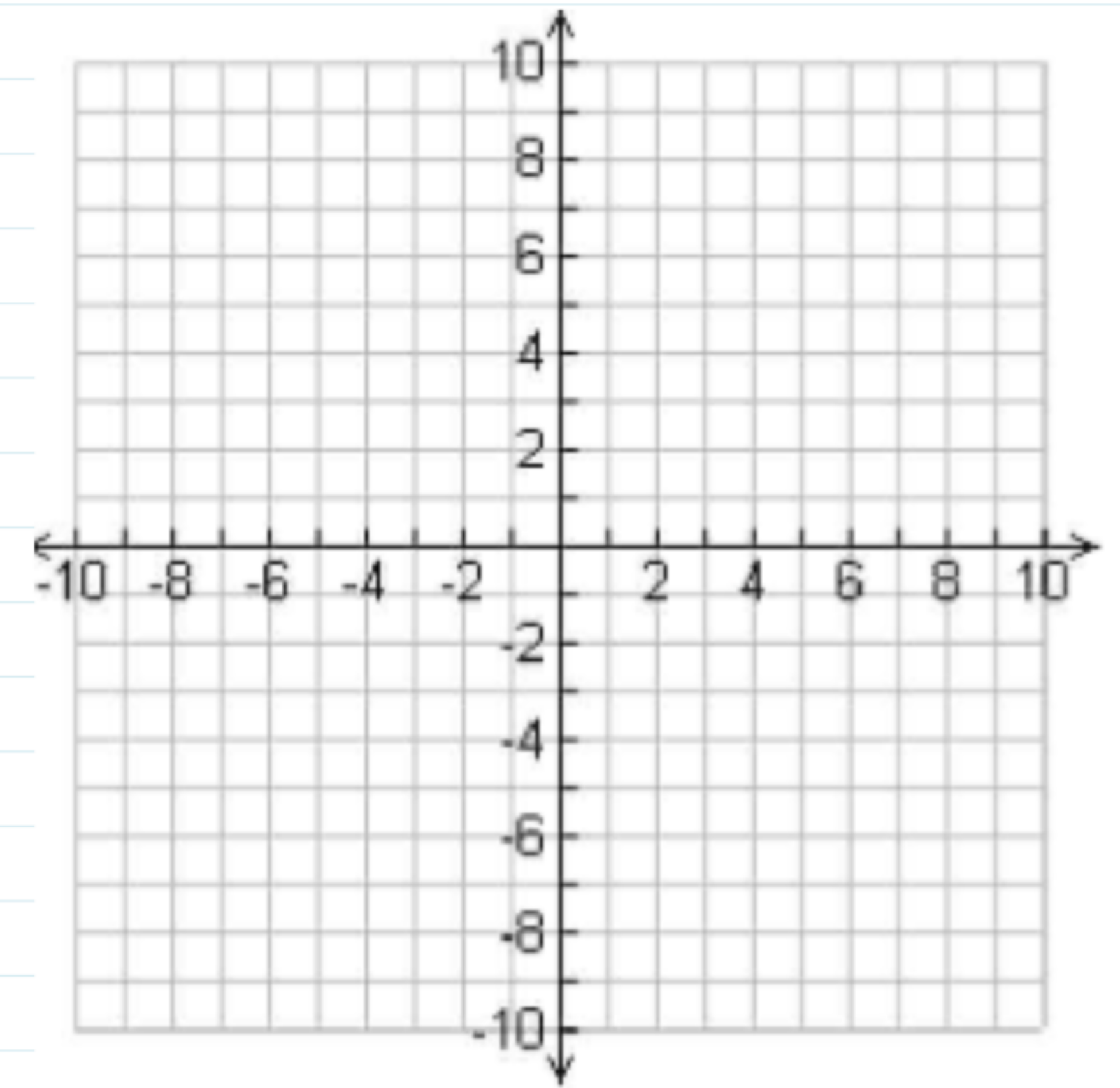
(a) find the value of x when $y = 2$;

(b) find the value of y when $x = 1$.

Hence write down the coordinates of two points which lie on this line.

5. If $4x + 3y = 24$, complete the following table and hence sketch this line.

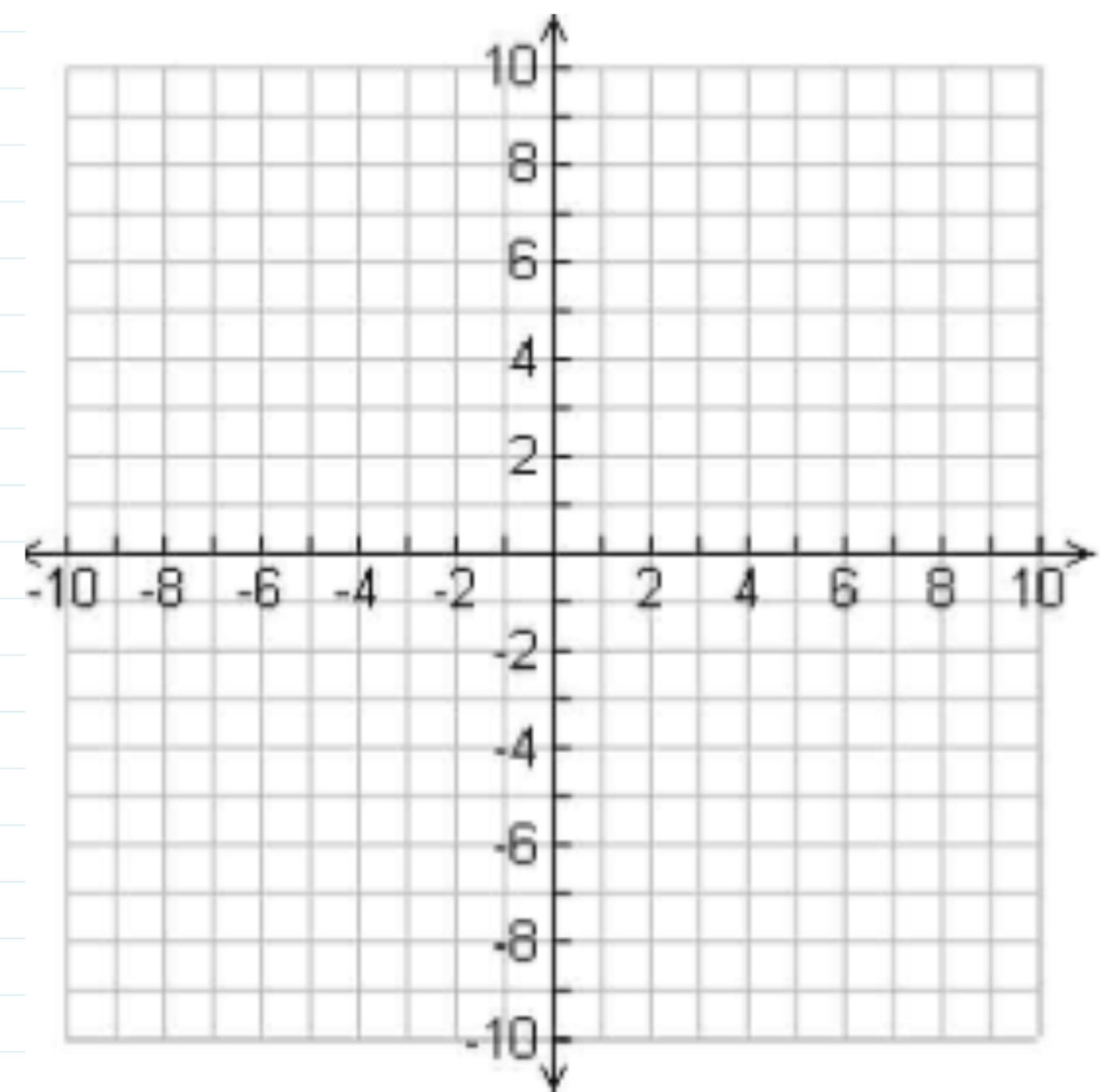
x	y
0	
	0
3	



6. Solve the following pairs of simultaneous linear equations graphically:

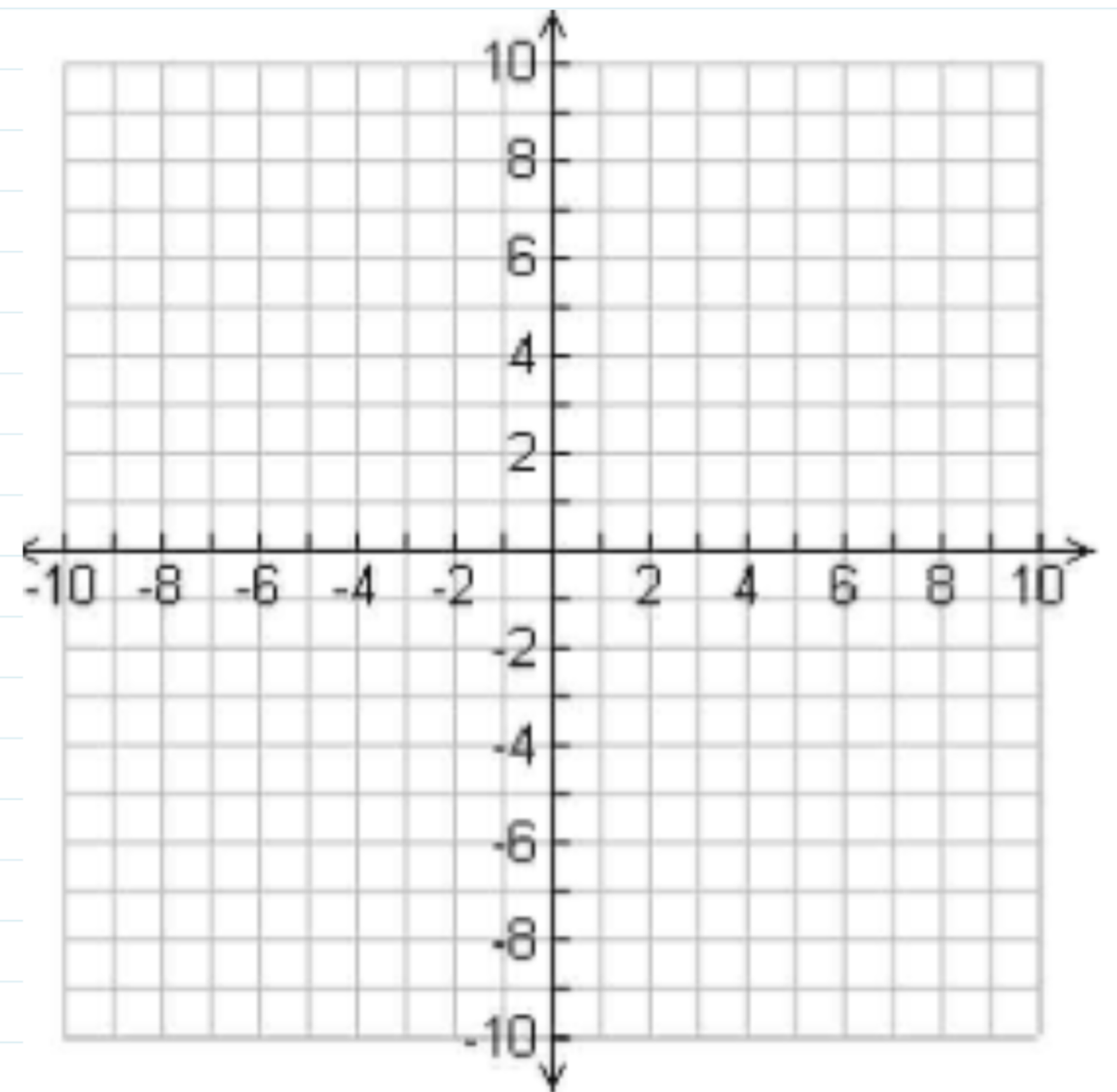
(a) $-2x + y = 2$

$$2x + y = -6$$



$$(c) \quad 2x + y = 4$$

$$4x - 3y = 3$$



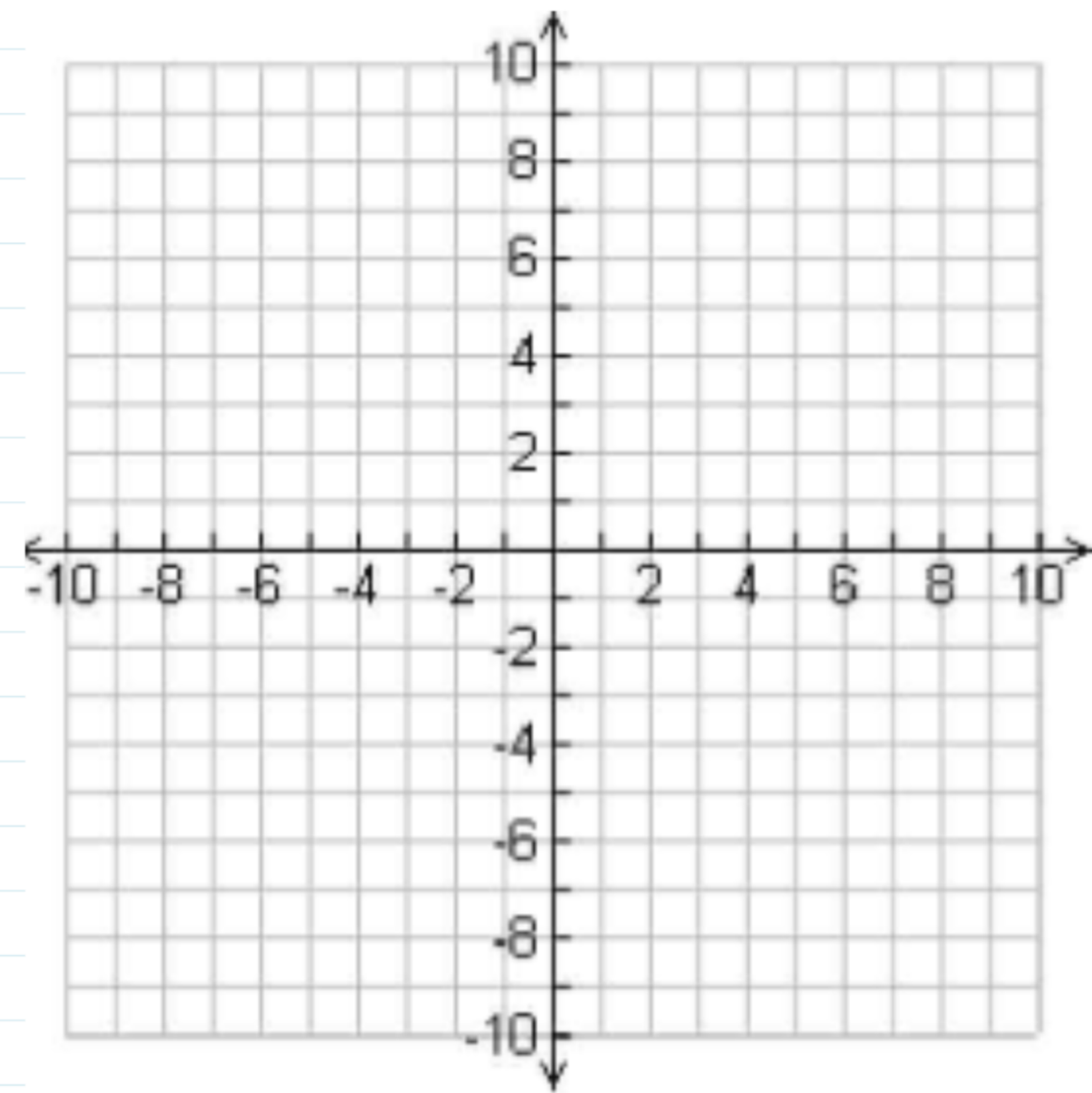
7. State the value of the slope and y intercept for each of the following lines:

$$(a) \quad y = 5x + 9$$

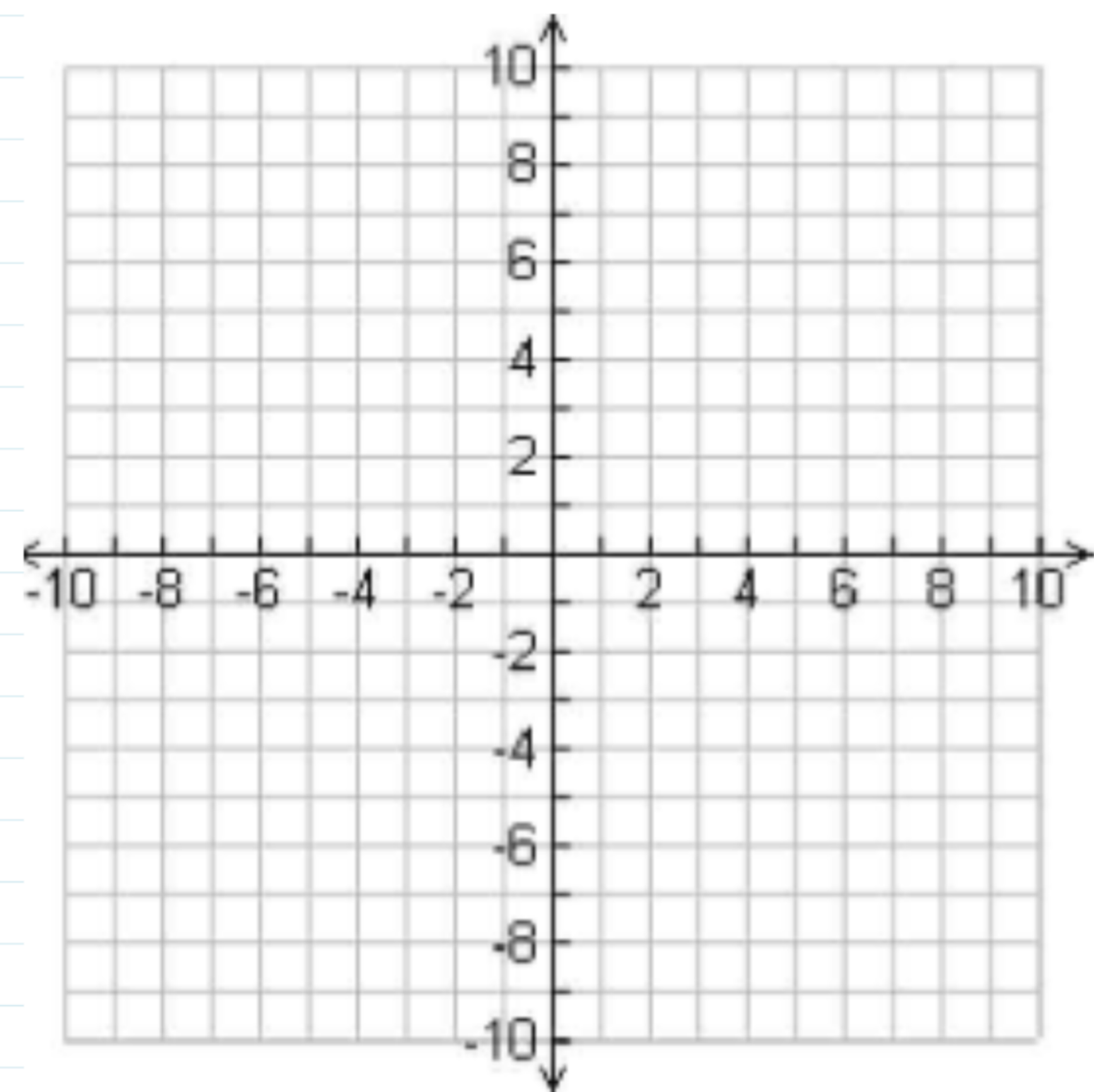
$$(d) \quad -x + y = 4$$

8. Use the slope–intercept approach to produce a rough sketch of the following lines:

(a) $y = -x$



(b) $x - 2y = 6$



Which of the following points lie on the line $3x - 5y = 25$?

$(5, -2)$, $(10, 1)$, $(-5, 0)$ $(5, 10)$, $(-5, 10)$, $(0, -5)$

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4. Identify the two lines in the following list which are parallel:

(a) $3x + 5y = 2$ (b) $5x - 3y = 1$ (c) $5x + 3y = 13$