

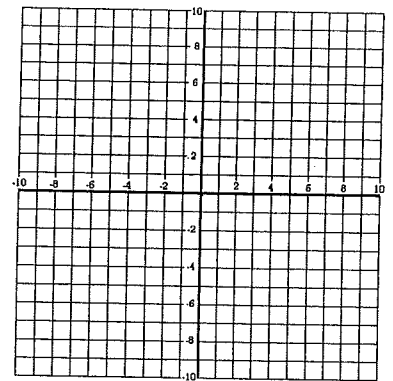
Write an equation of the line that passes through the given point and has the given slope. *By graphing.*

1.  $(3, -3)$ , slope 3

3.  $(1, 5)$ , slope  $-1$

2.  $(2, 4)$ , slope 2

4.  $(-4, 6)$ , slope  $-2$



Write an equation of the line that passes through the given point and has the given slope. *By Algebra.*

10.  $(3, 1)$ , slope 2

11.  $(-1, 4)$ , slope  $-1$

12.  $(1, 0)$ , slope 1

13.  $(7, 1)$ , slope 8

14.  $(2, 5)$ , slope  $-2$

15.  $(2, 6)$ , slope 2

*By your choice:*

25.  $(4, 2)$ , slope  $\frac{1}{2}$

26.  $(3, -2)$ , slope  $\frac{1}{3}$

27.  $(6, 4)$ , slope  $-\frac{3}{4}$

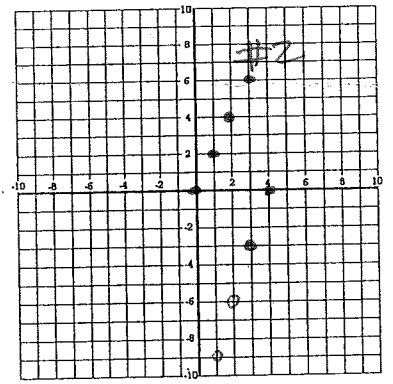
Write an equation of the line that passes through the given point and has the given slope. *By graphing.*

1. (3, -3), slope 3  $y = 3x - 12$

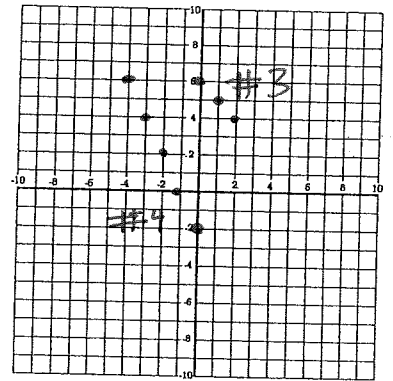
3. (1, 5), slope -1  
 $y = -x + 6$

2. (2, 4), slope 2  $y = 2x + 0$

4. (-4, 6), slope -2  
 $y = -2x - 2$



#2



#3

Write an equation of the line that passes through the given point and has the given slope. *By Algebra.*

10.  $\begin{matrix} x & y & m \\ (3, 1), & & \text{slope } 2 \end{matrix}$   
 $y = mx + b$   
 $1 = 2(3) + b$   
 $1 = 6 + b$   
 $-6 - 6$   
 $-5 = b$   
 $y = 2x - 5$

11.  $\begin{matrix} x & y & m \\ (-1, 4), & & \text{slope } -1 \end{matrix}$   
 $y = m(x) + b$   
 $4 = -1(-1) + b$   
 $4 = 1 + b$   
 $-1 - 1$   
 $3 = b$   
 $y = -x + 3$

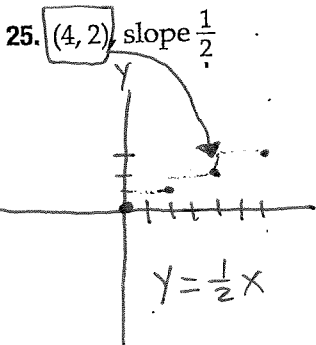
12.  $\begin{matrix} x & y & m \\ (1, 0), & & \text{slope } 1 \end{matrix}$   
 $y = m(x) + b$   
 $0 = 1(1) + b$   
 $0 = 1 + b$   
 $-1 = b$   
 $y = x - 1$

13.  $\begin{matrix} x & y & m \\ (7, 1), & & \text{slope } 8 \end{matrix}$   
 $y = m(x) + b$   
 $1 = 8(7) + b$   
 $1 = 56 + b$   
 $-55 = b$   
 $y = 8x - 55$

14.  $\begin{matrix} x & y & m \\ (2, 5), & & \text{slope } -2 \end{matrix}$   
 $y = m(x) + b$   
 $5 = -2(2) + b$   
 $5 = -4 + b$   
 $9 = b$   
 $y = -2x + 9$

15.  $\begin{matrix} x & y & m \\ (2, 6), & & \text{slope } 2 \end{matrix}$   
 $y = m(x) + b$   
 $6 = 2(2) + b$   
 $6 = 4 + b$   
 $2 = b$   
 $y = 2x + 2$

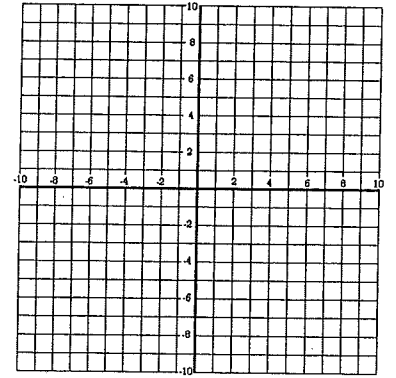
By your choice:



26.  $\begin{matrix} x & y & m \\ (3, -2), & & \text{slope } \frac{1}{3} \end{matrix}$   
 $y = mx + B$   
 $-2 = \frac{1}{3}(3) + B$   
 $-2 = 1 + B$   
 $-1 - 1$   
 $-3 = B$   
 $y = \frac{1}{3}x - 3$

27.  $(6, 4)$  slope  $-\frac{3}{4}$

 $y = m(x) + B$   
 $4 = -\frac{3}{4}(6) + B$   
 $4 = -4.5 + B$   
 $+4.5 + 4.5$   
 $8.5 = B$   
 $y = -\frac{3}{4}x + 8.5$

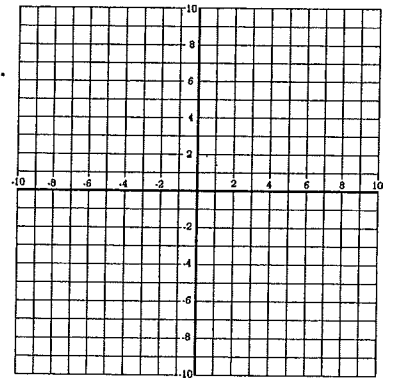


Write an equation of the line that passes through each pair of points.

By graphing

5.  $(4, -3), (2, 3)$

6.  $(-7, -3), (-3, 5)$



By algebra

7.  $(-1, 3), (0, 8)$

8.  $(-2, 6), (0, 0)$

Your choice:

16.  $(9, -2), (4, 3)$

17.  $(-2, 5), (5, -2)$

18.  $(-5, 3), (0, -7)$

19.  $(3, 5), (2, -2)$

20.  $(-1, -3), (-2, 3)$

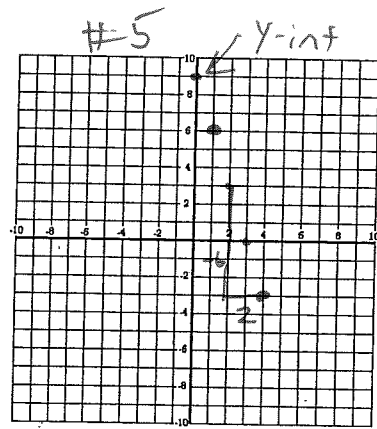
21.  $(-2, -4), (2, 4)$

$$y = \frac{\text{slope}}{\text{slope}} x + \frac{\text{y-int}}{\text{y-int}}$$

$$y = mx + b$$

$$m = \frac{y_1 - y_2}{x_1 - x_2}$$

↑ slope



Write an equation of the line that passes through each pair of points.

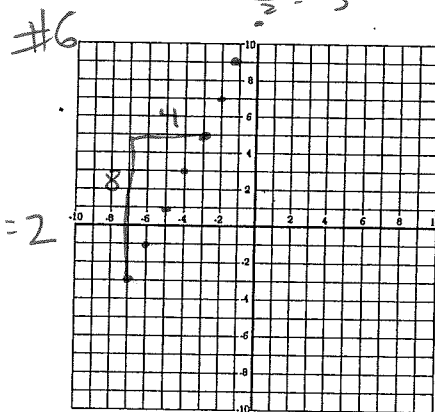
By graphing

5. (4, -3), (2, 3)

$$y = -3x + 9$$

6. (-7, -3), (-3, 5)

$$y = 2x + 11$$



By algebra

7. (-1, 3), (0, 8)

$$m = \frac{3-8}{-1-0} = \frac{-5}{-1} = 5$$

$$8 = 5(0) + b$$

$$8 = b$$

$$y = 5x + 8$$

8. (-2, 6), (0, 0)

$$m = \frac{6-0}{-2-0} = \frac{6}{-2} = -3$$

$$0 = -3(0) + b$$

$$0 = b$$

$$y = -3x + 0$$

Your Choice:

16. (9, -2), (4, 3)

$$\frac{-2-3}{9-4} = \frac{-5}{5} = -1$$

$$3 = -1(4) + b$$

$$\begin{array}{r} +4 \quad +4 \\ 7 = b \end{array}$$

$$y = -x + 7$$

17. (-2, 5), (5, -2)

$$\frac{5-(-2)}{-2-5} = \frac{7}{-7} = -1$$

$$5 = -1(-2) + b$$

$$\begin{array}{r} -2 \quad -2 \\ 3 = b \end{array}$$

$$y = -x + 3$$

18. (-5, 3), (0, -7)

$$\frac{3-(-7)}{-5-0} = \frac{10}{-5} = -2$$

$$y = -2x - 7$$

19. (3, 5), (2, -2)

$$\frac{5-(-2)}{3-2} = \frac{7}{1} = 7$$

$$5 = 7(3) + b$$

$$5 = 21 + b$$

$$\begin{array}{r} -21 \quad -21 \\ -16 = b \end{array}$$

$$y = 7x - 16$$

20. (-1, -3), (-2, 3)

$$\frac{-3-3}{-1-(-2)} = \frac{-6}{1} = -6$$

$$3 = -6(-2) + b$$

$$3 = 12 + b$$

$$\begin{array}{r} -12 \quad -12 \\ -9 = b \end{array}$$

$$y = -6x - 9$$

21. (-2, -4), (2, 4)

$$\frac{-4-4}{-2-2} = \frac{-8}{-4} = 2$$

$$4 = 2(2) + b$$

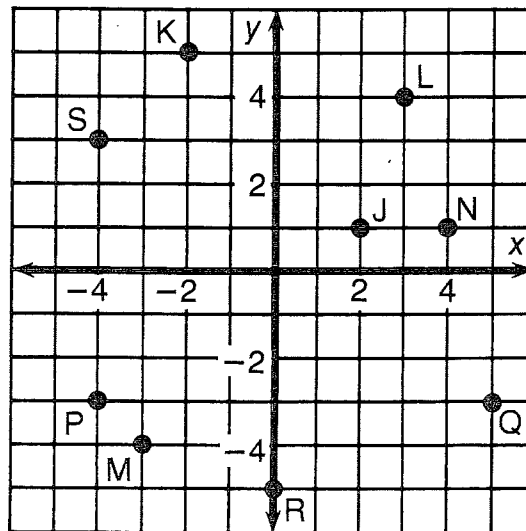
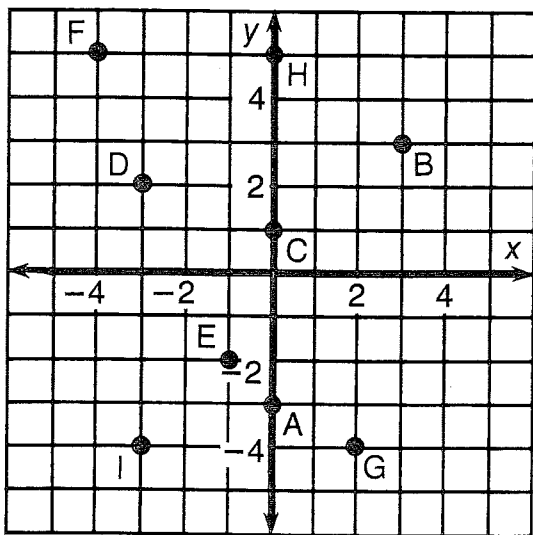
$$4 = 4 + b$$

$$\begin{array}{r} -4 \quad -4 \\ 0 = b \end{array}$$

$$y = 2x$$

# What Did the Ape Think of the Grape's House?

For each exercise, draw the line indicated and write its equation. Find your answer in the answer section and notice the two letters next to it. Print these letters in the two boxes at the bottom of the page that contain the number of that exercise.



- ① Equation of  $\overleftrightarrow{AB}$  \_\_\_\_\_
- ② Equation of  $\overleftrightarrow{CB}$  \_\_\_\_\_
- ③ Equation of  $\overleftrightarrow{DE}$  \_\_\_\_\_
- ④ Equation of  $\overleftrightarrow{FG}$  \_\_\_\_\_
- ⑤ Equation of  $\overleftrightarrow{HI}$  \_\_\_\_\_

- ⑥ Equation of  $\overleftrightarrow{JK}$  \_\_\_\_\_
- ⑦ Equation of  $\overleftrightarrow{LM}$  \_\_\_\_\_
- ⑧ Equation of  $\overleftrightarrow{NS}$  \_\_\_\_\_
- ⑨ Equation of  $\overleftrightarrow{PQ}$  \_\_\_\_\_
- ⑩ Equation of  $\overleftrightarrow{RQ}$  \_\_\_\_\_

Answers:

ⒹⒺ  $y = -\frac{1}{4}x + 2$

ⒹⒹ  $y = \frac{2}{5}x$

ⒺⒶ  $y = -2x + 3$

ⒹⒶ  $y = \frac{4}{3}x - 1$

ⒹⒺ  $y = \frac{2}{3}x + 1$

ⒹⒹ  $y = \frac{2}{5}x - 5$

ⒹⒹ  $y = -\frac{3}{2}x + 2$

ⒹⒹ  $y = -x + 3$

ⒹⒹ  $y = -2x - 4$

ⒹⒶ  $y = 2x - 3$

ⒹⒹ  $y = -\frac{3}{2}x - 1$

ⒹⒹ  $y = \frac{4}{3}x$

ⒹⒺ  $y = 3x + 5$

ⒹⒹ  $y = -3$

ⒹⒹ  $y = \frac{2}{3}x + 5$

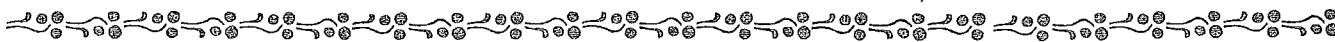
5	5	3	3	6	6	4	4	7	7	9	9	1	1	8	8	10	10	2	2
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# Why Did Gyro Go Into a Bakery?



For each exercise below, find the equation of the line that has the given slope and passes through the given point. Circle the letter next to the correct equation. Then write this letter in each box at the bottom of the page that contains the number of that exercise.

① $m = 2; (3, 2)$	<input type="checkbox"/> G	$y = 2x + 1$	<input type="checkbox"/> R	$y = 2x - 4$
② $m = -3; (1, 4)$	<input type="checkbox"/> O	$y = -3x + 7$	<input type="checkbox"/> P	$y = -3x + 2$
③ $m = -5; (-1, 3)$	<input type="checkbox"/> M	$y = -5x - 2$	<input type="checkbox"/> D	$y = -5x + 6$
④ $m = 3; (-4, -7)$	<input type="checkbox"/> V	$y = 3x + 1$	<input type="checkbox"/> E	$y = 3x + 5$
⑤ $m = -1; (5, -2)$	<input type="checkbox"/> U	$y = -x + 3$	<input type="checkbox"/> C	$y = -x - 1$
⑥ $m = \frac{1}{2}; (6, 1)$	<input type="checkbox"/> W	$y = \frac{1}{2}x - 5$	<input type="checkbox"/> H	$y = \frac{1}{2}x - 2$
⑦ $m = -\frac{2}{3}; (3, 4)$	<input type="checkbox"/> A	$y = -\frac{2}{3}x - 7$	<input type="checkbox"/> I	$y = -\frac{2}{3}x + 6$
⑧ $m = \frac{4}{3}; (-2, 0)$	<input type="checkbox"/> K	$y = \frac{4}{3}x + \frac{5}{2}$	<input type="checkbox"/> F	$y = \frac{4}{3}x + \frac{8}{3}$
⑨ $m = -\frac{1}{4}; (2, 1)$	<input type="checkbox"/> J	$y = -\frac{1}{4}x + \frac{3}{2}$	<input type="checkbox"/> D	$y = -\frac{1}{4}x - \frac{3}{8}$
⑩ $m = 4; (-1, \frac{1}{2})$	<input type="checkbox"/> A	$y = 4x - \frac{2}{3}$	<input type="checkbox"/> T	$y = 4x + \frac{9}{2}$
⑪ $m = -2; (0, 0)$	<input type="checkbox"/> L	$y = -2x$	<input type="checkbox"/> B	$y = -2x - 2$
⑫ $m = 0; (-5, \frac{3}{4})$	<input type="checkbox"/> S	$y = \frac{3}{4}$	<input type="checkbox"/> N	$y = -5x$



9	5	12	10	8	2	1	10	6	4	12	3	4	11	11	2	8	7	10
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# Why Did Gyro Go Into a Bakery?



For each exercise below, find the equation of the line that has the given slope and passes through the given point. Circle the letter next to the correct equation. Then write this letter in each box at the bottom of the page that contains the number of that exercise.

① $m = 2; (3, 2)$	① $y = 2x + b$ $2 = 2(3) + b$ $2 = 6 + b$ $\frac{-6 \quad -6}{-4 = b}$ $y = 2x - 4$	③ $y = -5x + b$ $3 = -5(-1) + b$ $3 = 5 + b$ $\frac{-5 \quad -5}{-2 = b}$ $y = -5x - 2$
② $m = -3; (1, 4)$		
③ $m = -5; (-1, 3)$		
④ $m = 3; (-4, -7)$		
⑤ $m = -1; (5, -2)$	⑤ $y = -x + b$ $-2 = -1(5) + b$ $-2 = -5 + b$ $\frac{+5 \quad +5}{3 = b}$ $y = -x + 3$	⑦ $y = \frac{-2}{3}x + b$ $4 = \frac{-2}{3}(3) + b$ $4 = -2 + b$ $\frac{+2 \quad +2}{6 = b}$ $y = \frac{-2}{3}x + 6$
⑥ $m = \frac{1}{2}; (6, 1)$		
⑦ $m = -\frac{2}{3}; (3, 4)$		
⑧ $m = \frac{4}{3}; (-2, 0)$	⑨ $y = -\frac{1}{4}x + b$ $1 = -\frac{1}{4}(2) + b$ $1 = -\frac{1}{2} + b$ $\frac{+\frac{1}{2} \quad +\frac{1}{2}}{\frac{3}{2} = b}$ $y = -\frac{1}{4}x + \frac{3}{2}$	⑪ $y = -2x + b$ $0 = -2(0) + b$ $0 = b$ $y = -2x$
⑨ $m = -\frac{1}{4}; (2, 1)$		
⑩ $m = 4; (-1, \frac{1}{2})$		
⑪ $m = -2; (0, 0)$		
⑫ $m = 0; (-5, \frac{3}{4})$		



9	5	12	10	8	2	1	10	6	4	12	3	4	11	11	2	8	7	10
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# What Happened When Two Fruit Companies Merged?

For each exercise below, find the equation of the line passing through the given points. Circle the two letters next to the correct equation. Then write these letters in the two boxes at the bottom of the page that contain the number of that exercise.

Answers:

① (1, 5) (2, 7)

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

TH  $y = \frac{1}{2}x - 4$

② (0, 1) (3, -8)

AP  $y = -\frac{3}{2}x + 8$

UI  $y = -3x + 5$

③ (2, -3) (4, -2)

ST  $y = \frac{1}{2}x - 7$

DE  $y = 2x + 3$

④ (2, 5) (4, 2)

CT  $y = -3x + 1$

EY  $y = 4x + 7$

⑤ (-3, -5) (-1, 3)

LO  $y = -\frac{3}{2}x - 4$

IL  $y = 2x + 1$

Answers:

⑥ (3, -1) (-6, -4)

HA  $y = \frac{1}{2}x - 1$

ER  $y = -\frac{3}{4}x + 4$

⑦ (4, 1) (-4, 7)

IS  $y = \frac{1}{3}x + \frac{8}{3}$

EL  $y = -2x - 1$

⑧ (-1, 2) (3, 4)

PE  $y = -x + 2$

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

⑨ (-1, -4) (2, 0)

SO  $y = \frac{4}{3}x - 2$

AR  $y = \frac{1}{3}x - 2$

⑩ (3, -1) (-3, 5)

MA  $y = \frac{1}{2}x + \frac{5}{2}$

FE  $y = \frac{4}{3}x - \frac{8}{3}$

3	3	5	5	8	8	1	1	4	4	7	7	9	9	2	2	10	10	6	6
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