

Pre Assessment

Simplify. Write each answer in scientific notation.

1) $(8.3 \times 10^{-6})(7.42 \times 10^5)$

- A) 61.59×10^1
 B) 6.159×10^1
 C) 1.119×10^{-11}
 D) 6.159×10^0

2) $\frac{9.1 \times 10^{-3}}{2.3 \times 10^{-6}}$

- A) 3.957×10^3
 B) 0.3957×10^3
 C) 2.093×10^{-8}
 D) 2.093×10^8

Find the slope of the line through each pair of points.

3) $(-7, -15), (1, -15)$

- A) 1 B) Undefined
 C) 0 D) -1

4) Jill and Ndiba are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Jill sold 13 rolls of plain wrapping paper and 11 rolls of shiny wrapping paper for a total of \$275. Ndiba sold 4 rolls of plain wrapping paper and 5 rolls of shiny wrapping paper for a total of \$104. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?

- A) roll of plain wrapping paper: \$11, roll of shiny wrapping paper: \$12
 B) roll of plain wrapping paper: \$12, roll of shiny wrapping paper: \$5
 C) roll of plain wrapping paper: \$15, roll of shiny wrapping paper: \$6
 D) roll of plain wrapping paper: \$12, roll of shiny wrapping paper: \$11

5) Jasmine's Bikes rents bikes for \$15 plus \$4 per hour. Sumalee paid \$47 to rent a bike. For how many hours did she rent the bike?

- A) 6 B) 8
 C) 7 D) 11.75

Simplify each expression.

6) $(3a^2 + 8a^4 - 4a^3) + (3a^4 + 6a + 6a^2)$

- A) $11a^4 - 4a^3 + 9a^2 + 6a$
 B) $9a^4 - 4a^3 + 9a^2 + 6a$
 C) $6a^4 - 4a^3 + 9a^2 + 6a$
 D) $9a^4 - 4a^3 + 13a^2 + 6a$

7) $(2v - 4v^3 + 8v^4) - (5v^4 + v - 7v^3)$

- A) $3v^4 + 4v^3 + v$
 B) $3v^4 + 3v^3 + v$
 C) $-3v^4 + 4v^3 + 8v$
 D) $-3v^4 + 4v^3 + v$

8) $5(9x + 10) - 8(3x - 5)$

- A) $21x + 90$ B) $28x + 61$
C) $-8 - 24x$ D) $28x + 64$

Find each product.

9) $(8x - 7)(3x + 2)$

- A) $24x^2 - 14$
B) $24x^2 + 37x + 14$
C) $24x^2 - 37x + 14$
D) $24x^2 - 5x - 14$

10) $(n - 2)(n^2 + 5n - 2)$

- A) $32n^3 - 56n^2 + 4n - 40$
B) $30n^3 + 8n^2 + 17n - 10$
C) $42n^3 - 97n^2 + 62n - 7$
D) $n^3 + 3n^2 - 12n + 4$

Solve each system by substitution.

11) $6x - 2y = -16$

$y = 4x + 8$

- A) $(8, 0)$ B) $(-6, 8)$
C) No solution D) $(0, 8)$

Solve each equation.

12) $-9x + 7 = 169$

- A) $\{-8\}$ B) $\{-18\}$
C) $\{2\}$ D) $\{12\}$

13) $2(4n - 6) = 3(6n + 6)$

- A) { All real numbers. }
B) $\{-3\}$
C) $\{8\}$
D) $\{2\}$

Solve each proportion.

14) $\frac{3}{n} = \frac{4}{10}$

- A) $\{2\}$ B) $\{8.5\}$
C) $\{7.5\}$ D) $\{3\}$

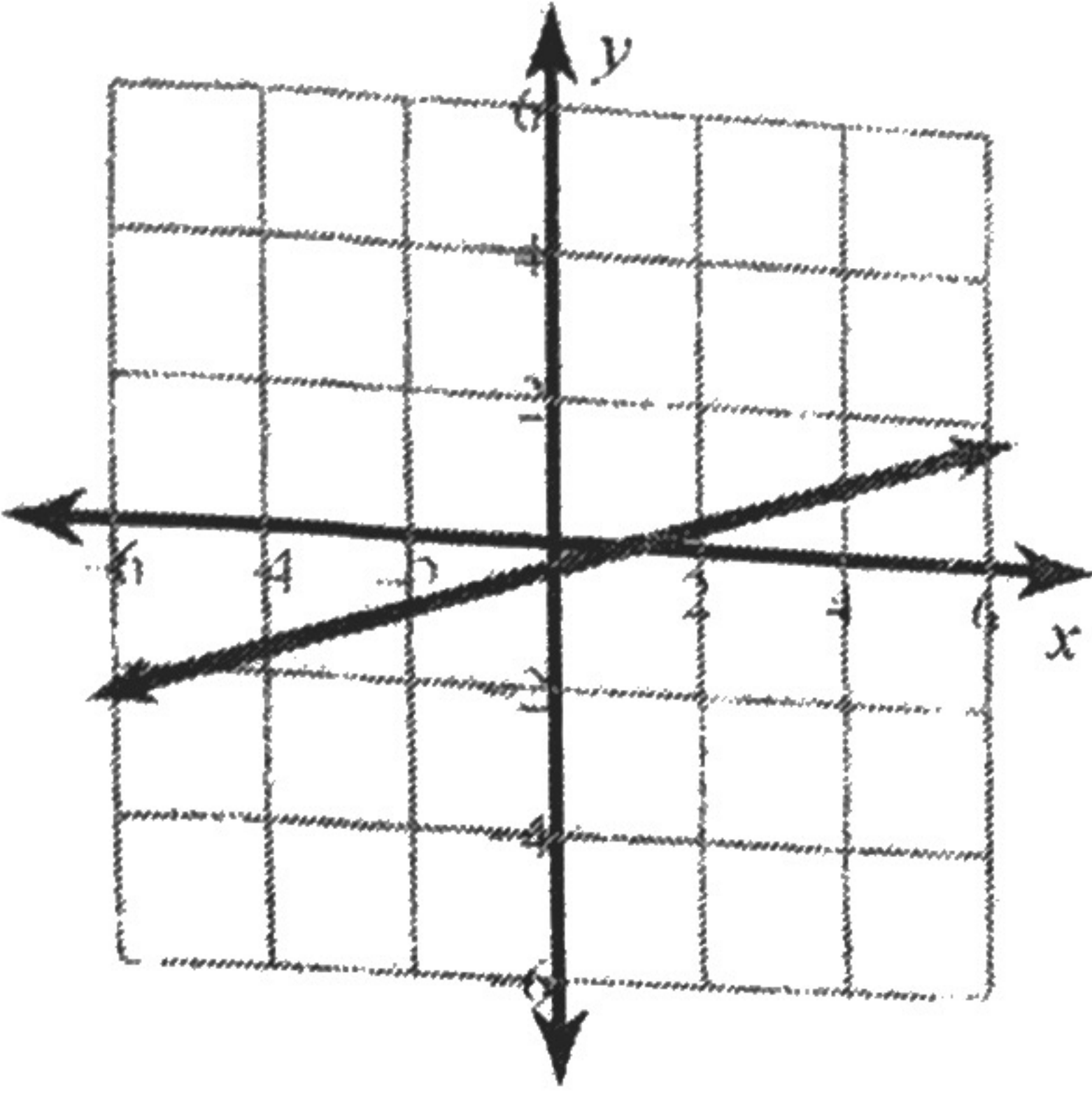
15) $\frac{x + 5}{3} = \frac{9}{4}$

- A) $\{1.75\}$ B) $\{1.8\}$
C) $\{-2\}$ D) $\{6.2\}$

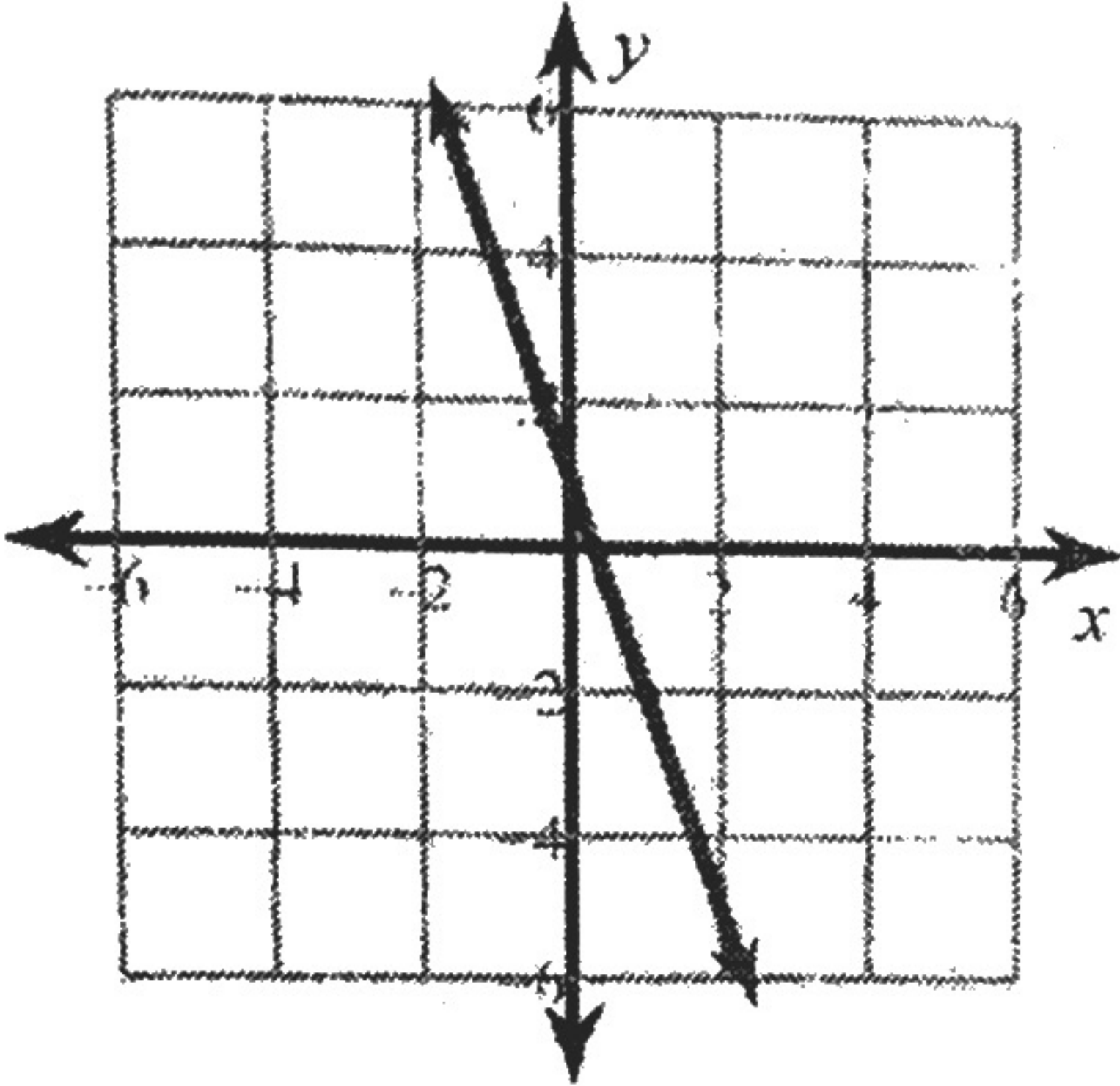
Sketch the graph of each line.

16) $y = 3x + 1$

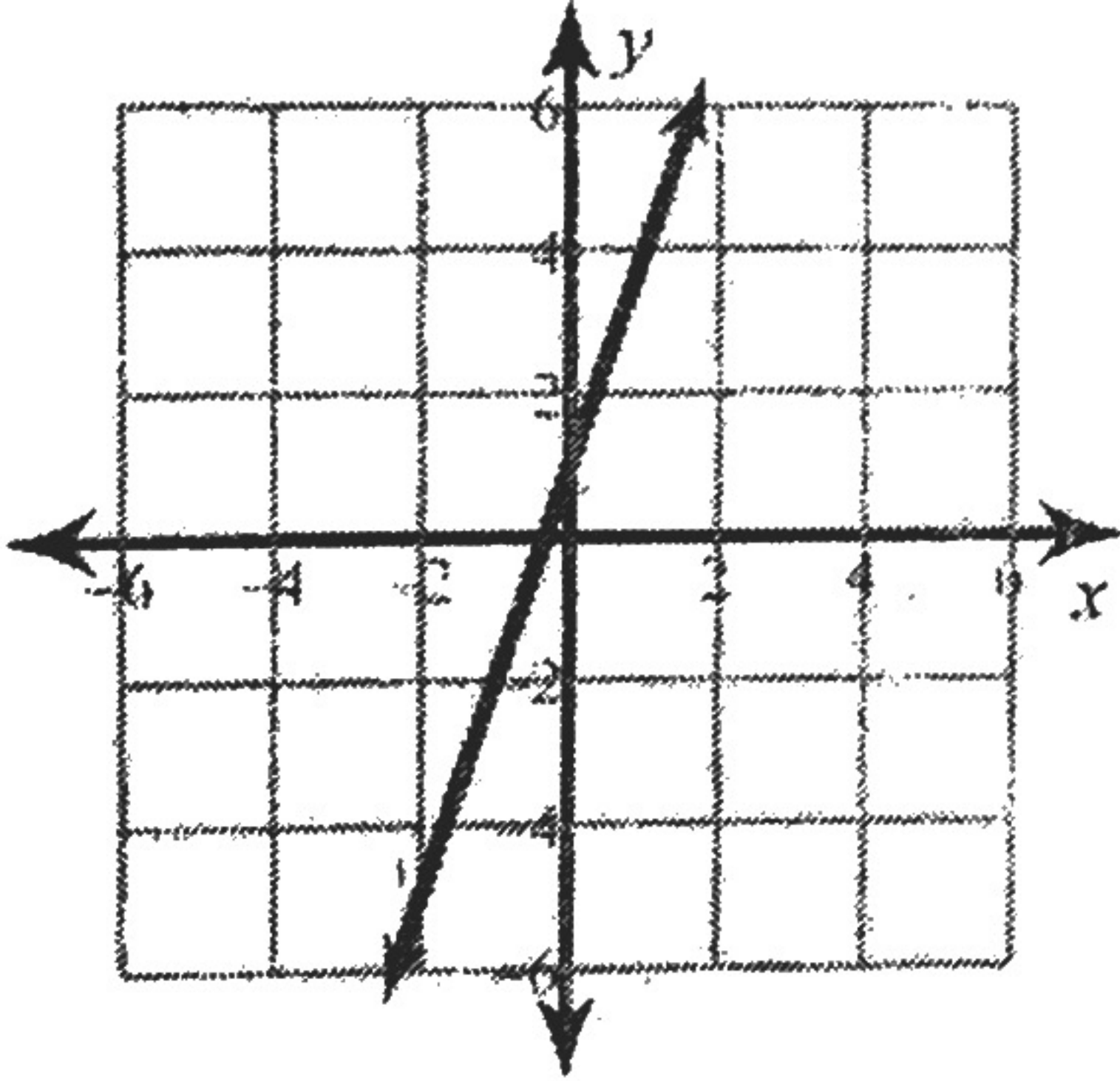
A)



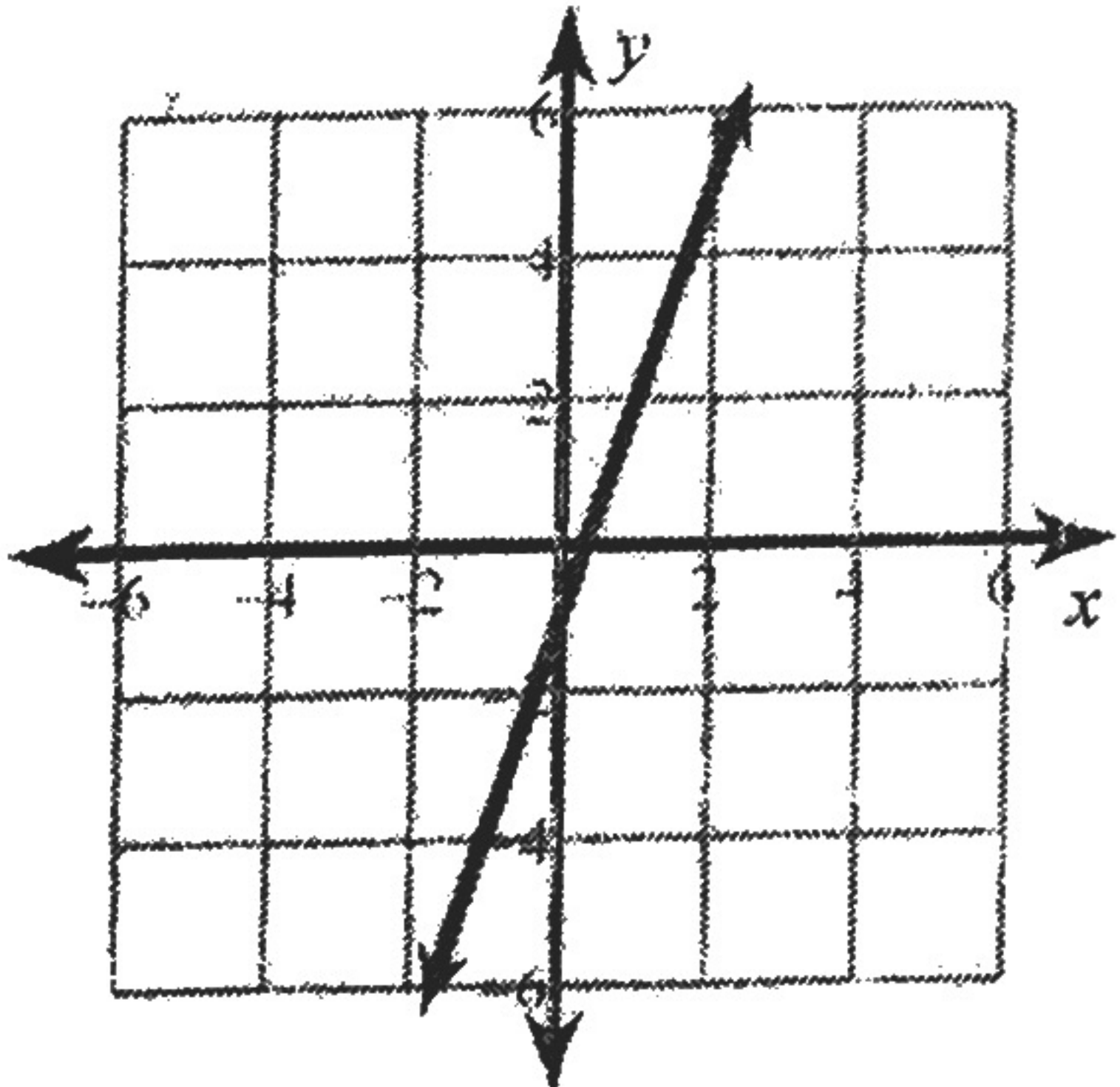
B)



C)



D)

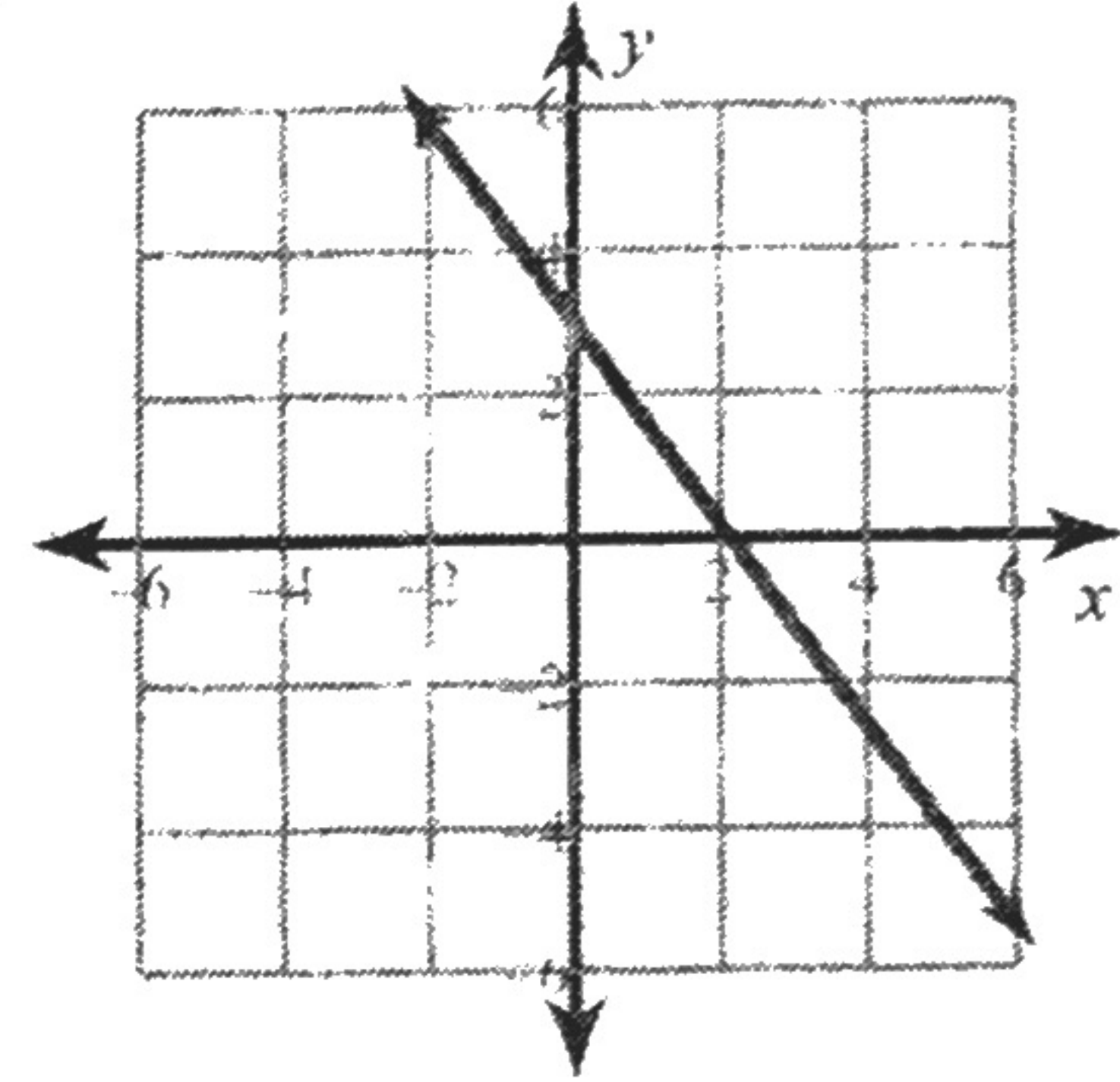


17) $7x - 5y = -15$

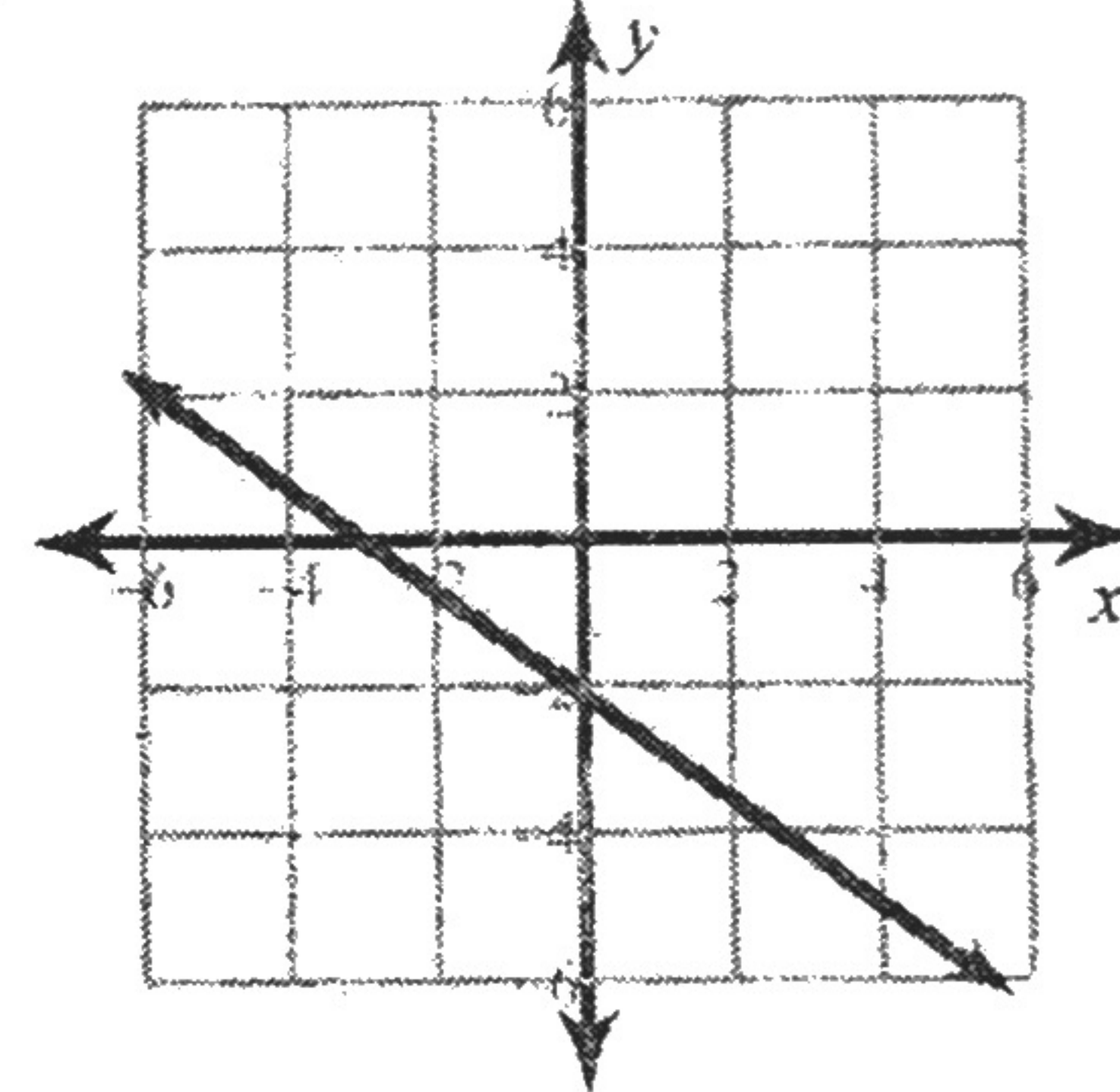
A)



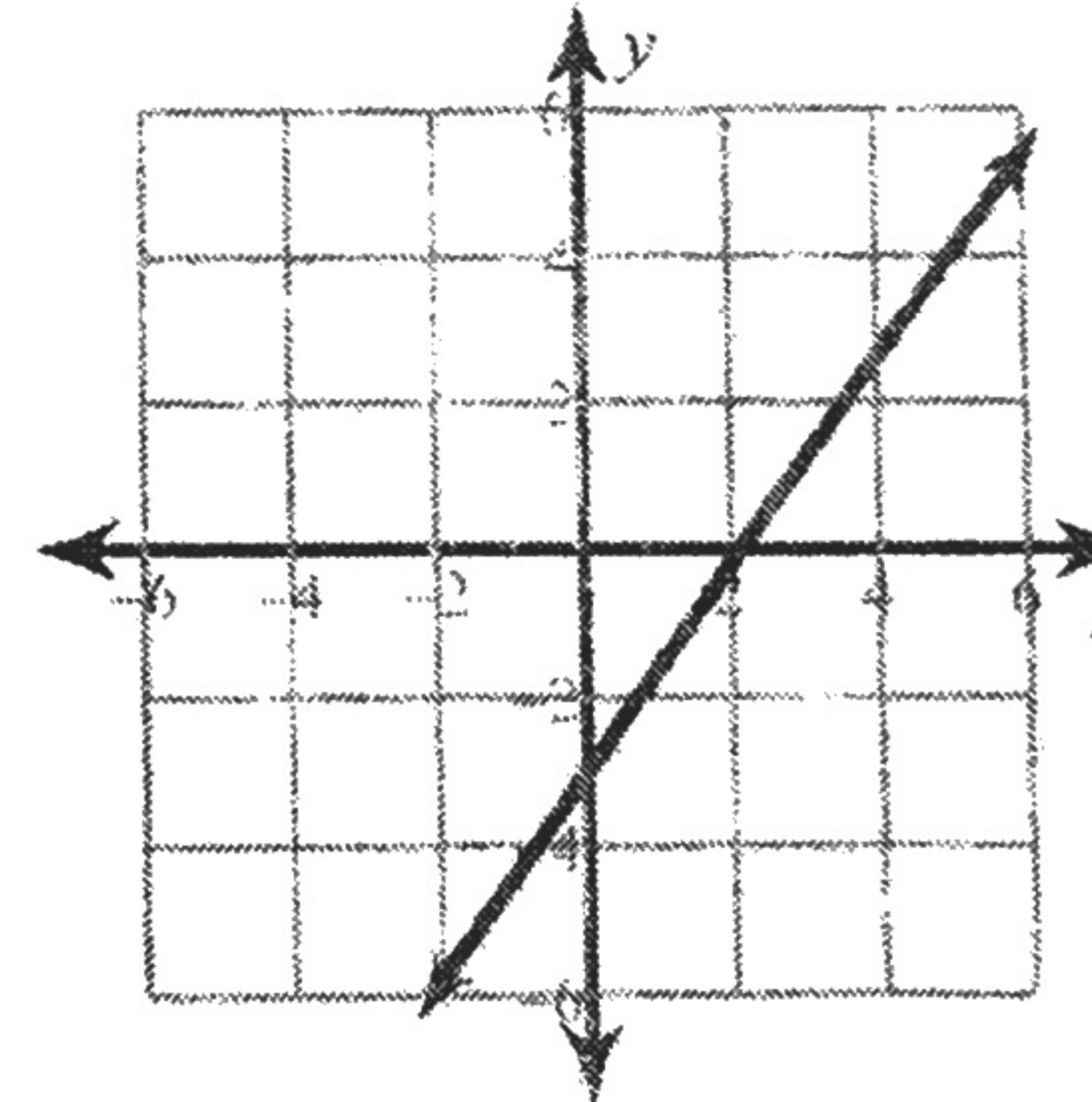
B)



C)



D)



Write each as an algebraic expression.

18) the quotient of y and 8 is equal to 48

A) $\frac{y}{8} = 48$ B) $8 + y \leq 48$

C) $\frac{8}{y} = 48$ D) $8 + y < 48$

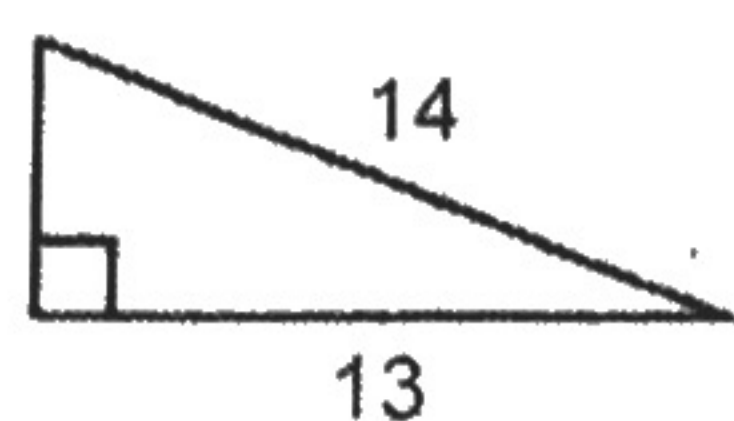
19) the difference of n and 24 is 7

A) $n + 24 < 7$ B) $24 - n = 7$

C) $n - 24 = 7$ D) $24n = 7$

Find each missing length to the nearest tenth.

20)



A) 1 B) 5.2

C) 3.4 D) 49

21) A piece used to assemble a computer must be 1.4 millimeters \pm 0.02 millimeters in diameter. Which of the following measurement does NOT meet the specified tolerance.

A) 1.420 millimeters B) 1.402 millimeters

C) 1.382 millimeters D) 1.378 millimeters

22) Julie's total cell phone bill consists of a monthly fee plus a charge per minute used. The expression that describes the total of Julie's cell phone bill is $0.07x + 29.99$. What does the variable x represent?

A) The number of months billed

B) The total amount of the bill

C) The number of minutes used

D) The monthly fee

23) A pipe is leaking at the rate of 8 fluid ounces per minute. Use conversions to find out how many gallons the pipe is leaking per hour.

A) 3,840 gal/hr B) 0.02 gal/hr

C) 3.75 gal/hr D) 17.07 gal/hr

24) Which equation is the result of solving $9 + 3x = 2y$ for x ?

A) $\frac{9 + 3y}{2} = x$ B) $\frac{2}{3}y - 9 = x$

C) $x = \frac{2}{3}y - 3$ D) $x = 2y - 3$

25) Two yards of fabric cost \$13 and 5 yards of fabric cost \$32.50. Which equation relates the cost of the fabric c to its length l .

A) $c = 2.6l$ B) $c = 6.5l$

C) $c = 13l$ D) $c = 32.5l$