

KEY

1. Ashley baby sits for a part time job. She charges \$5/h plus a flat fee of \$10. If h represents the number of hours she works, and C represents her total fee, determine the equation that represents what she charges.

$$C=5h+10$$

2. Determine the relation that matches the table of values.

x	1	2	3
y	3	8	13

$$Y = 5x - 2$$

3. Determine the relation that matches the table of values.

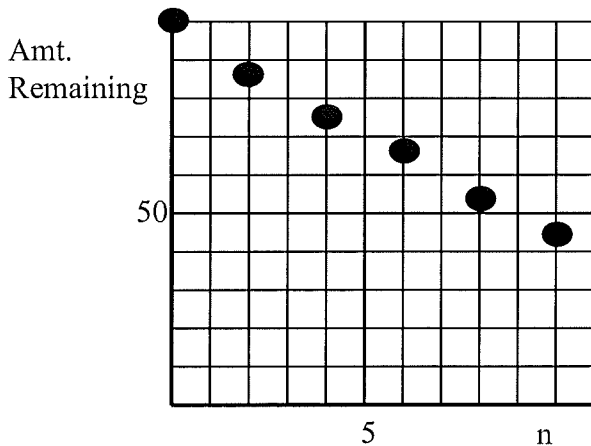
x	2	4	6
y	7	6	5

$$y = -\frac{1}{2}x + 8$$

4. Determine the rate of change and the starting number for the relation $y = \frac{2}{3}x - 4$

$$r/c = \frac{2}{3} \text{ and starting \# is } -4$$

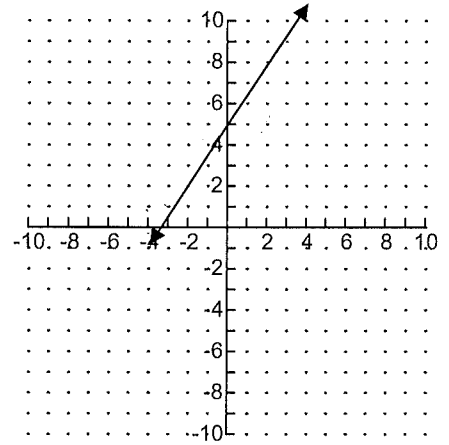
5. Dave has \$100 to spend on school lunches. Each day he spends \$5.50 on lunch. Let n represent the number and A represent the account balance. Create a table from $n = 0$ to $n = 9$ then graph. What is the rate of change and the starting number? Write an equation relating the account balance to the number of lunches purchased.



$$C = -5.50n + 100$$

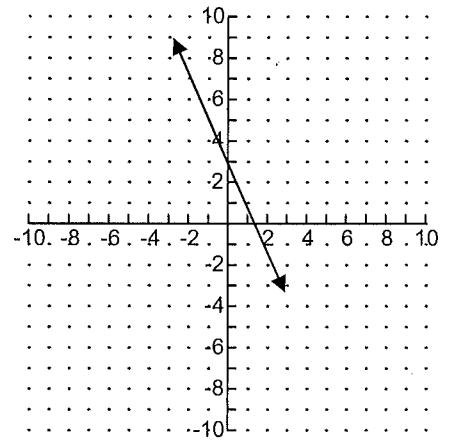
6. Graph and label $y = \frac{2}{3}x + 5$ using a table of values

x	y
-6	1
-3	3
0	5
3	7
6	9

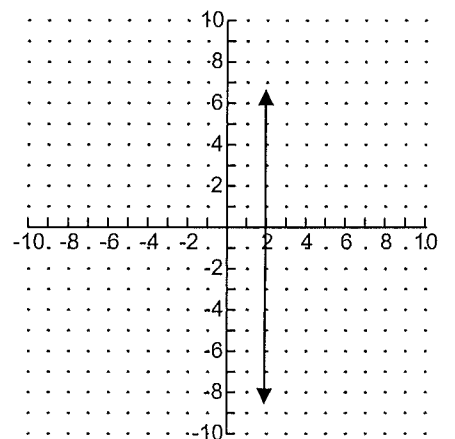


7. Graph and label $2x + y = 3$ using a table of values

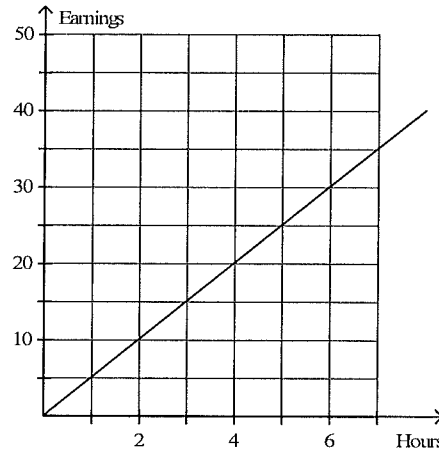
x	y
-2	7
-1	5
0	3
1	1
2	-1



8. Graph and label $x = 2$



9. Determine which situation matches the graph.



- A. David earns \$5/h tutoring.**
B. Eric earns \$6.50/h painting.

- C. Sandra earns \$4/h babysitting.**
D. Henry earns \$4.50/h mowing lawns.

10. Solve the following equations

a) $\frac{x}{3} + \frac{x}{4} = 6$

$$X = \frac{72}{7}$$

b) $3(x-2) = 2x-1$

$$X = 5$$

c) $\frac{2x}{5} + 1 = 4$ d) $4x-2+3x = x-2x+16$

$$X = \frac{15}{2}$$

$$X = \frac{9}{4}$$

11. The perimeter of a rectangle is 46 cm. The length is 1 cm less than the twice the width. Determine the dimensions of the rectangle. Write an solve an appropriate equation

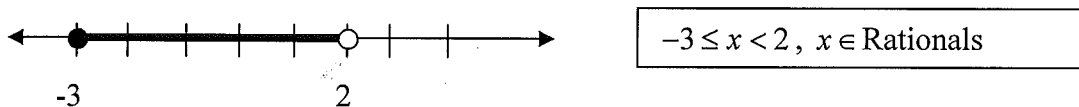
$$2w+2(2w-1) = 46$$

Dimensions are 8 by 15

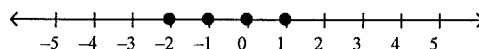
12. Determine which inequality matches the statement: A number is less than 4.

- a) $x \geq 4$ **b) $x < 4$** c) $x > 4$ d) $x \leq 4$

13. Determine the inequality that matches the number line.



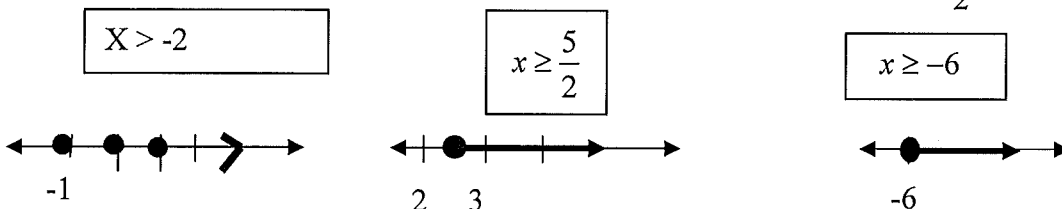
14. Determine which inequality matches the number line.



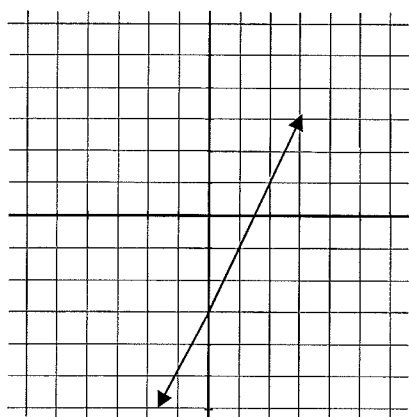
- a) $-3 \leq x \leq 1$ b) $-2 \leq x < 1$ c) $-3 < x < 1$ d) $-3 < x \leq 1$

15. Solve and graph the solution to the following inequalities

- a) $4x + 1 > -7$ (Integers) b) $3x - 6 \geq x - 1$ (Rationals) c) $\frac{x}{2} + 1 \geq -2$ (Rationals)



16. For the linear relation $y = 2x - 3$, create a table of values then graph on the grid provided.



x	y
-1	-5
0	-3
1	-1
2	1
3	3

17. A linear relation passes through $(-2, 3)$ and $(4, 8)$. What is the rate of change?

Rate of change is $\frac{5}{6}$

18. Solve the following equations.

a. $5x - 21 = -6$

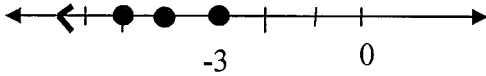
$x = 3$

b. $19 - 3x - 2x = 4 + 5x$

$x = \frac{3}{2}$

19. Graph the following inequalities.

a. $x \leq -3$, where x is an Integer



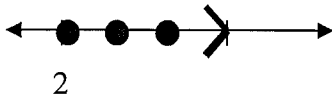
b. $-2 \leq x < 5$, where x is a Rational



20. Solve and graph the following inequalities.

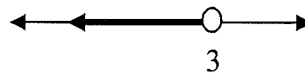
a. $5x - 2 \geq 8$, where x is an Integer

$x \geq 2$



b. $-3n > n - 12$, where n is a Rational

$n < 3$



21. Mel is twice Anna's age. In 12 years, the sum of their ages will be 36. Write and solve an equation to determine Anna's current age.

Mel is 8 and Anna is 4

22. A rectangle has a perimeter of 36 cm. The width is one-half the length. Write and solve an equation to determine the dimensions of the rectangle.

12 by 6