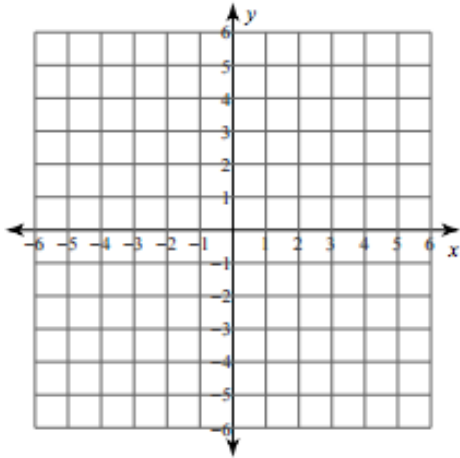


Homework 2.1 Modeling Linear Equations

Recall from class, we discussed that mathematics can be represented (a) algebraically – using variables, (b) graphically – using coordinate plane, (c) analytically – using tables and (d) verbally – using words. Provide the missing representations for each problem.

1. $y = -6x + 3$

[Graphical Representation]

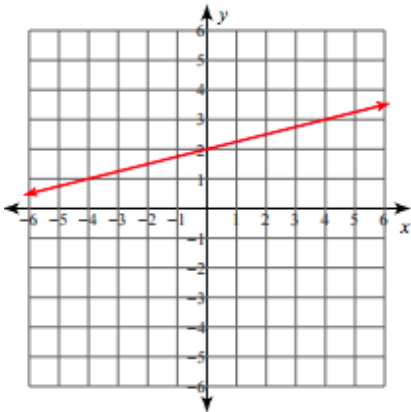


[Analytic Representation]

X	Y

[Verbal Representation]

2. Consider the graph below.



[Analytic Representation]

X	Y

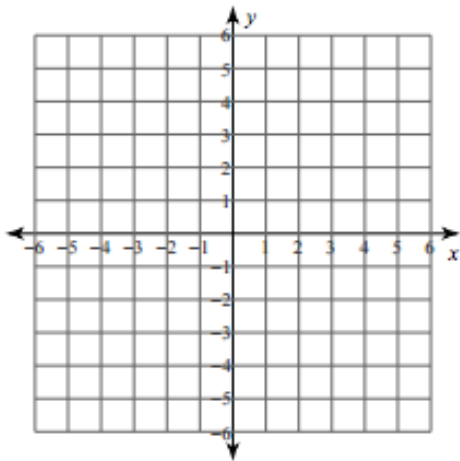
[Algebra Representation]

[Verbal Representation]

3. Consider the table below.

X	Y
-2	5
-1	5
0	5
1	5
2	5

[Graphical Representation]

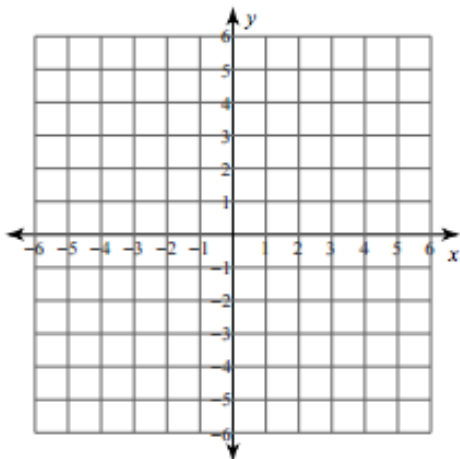


[Algebraic Representation]

[Verbal Representation]

4. This line is going in negative direction, with a slope of -2 and a y-intercept of (0, 5).

[Graphical Representation]



[Algebraic Representation]

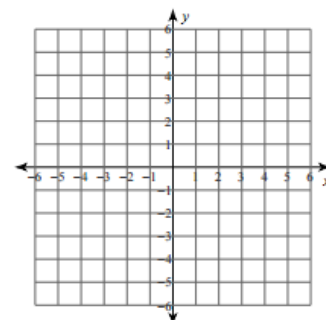
[Analytic Representation]

X	Y

Answer the following questions.

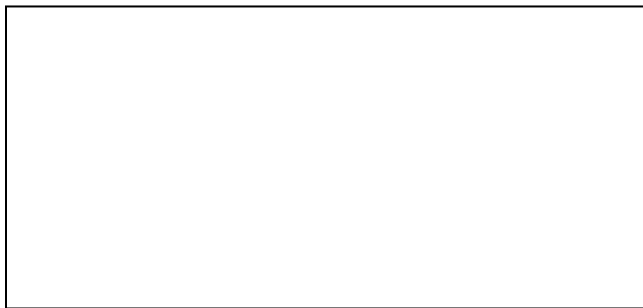
5. What is the slope of $x = 3$?

6. Sketch the graph of this equation.

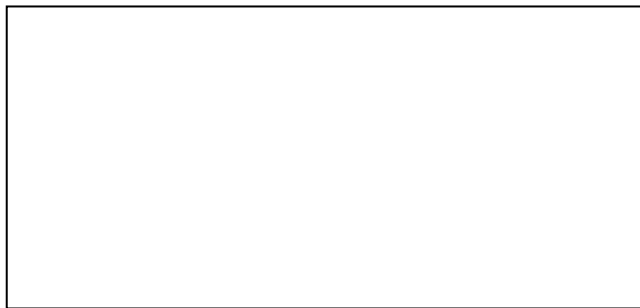


Write the equation of the line in slope intercept form $y=mx+b$ for each of the given information.

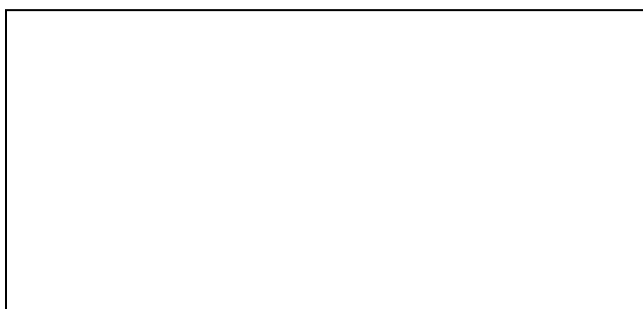
7. through $(-3,-4)$ with slope $=\frac{3}{4}$



8. through $(-1, 1)$ with slope $= -2$



9. through $(-1, -5)$ with slope $= 9$



10. through $(2, -1)$ with slope $= -\frac{5}{2}$



11. through $(1, 0)$ and $(0, 2)$



12. through $(1, -2)$ and $(-4, 1)$



13. through $(3, 2)$ and $(1, 2)$



14. through $(4, -1)$ and $(1, 4)$

