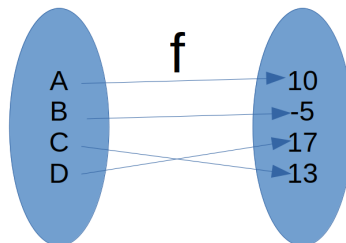


## Test 1 Spring

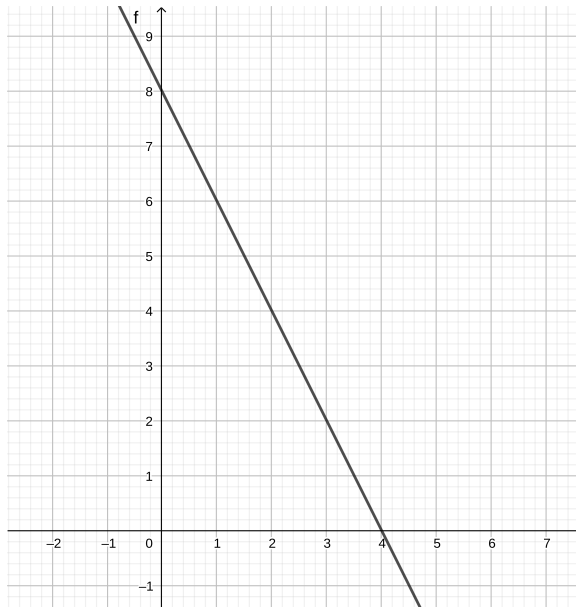
Please read and follow all instructions.

1. Sketch the graph of  $y = -2x + 6$  including the x and y intercepts.
2. Solve for  $x$ :  $3x + 2 = 23$
3. Solve for  $x$ :  $5x + 1 = 2x - 17$
4. Find the equation of the line with slope 3 through  $(2, 5)$  **in slope-intercept form.**
5. Given two points  $(1, 3)$  and  $(4, 12)$ :
  - (a) Find the slope of the line connecting them.
  - (b) Sketch the line.
  - (c) What is the y-intercept?
6. Given  $f(x) = x^2 + 3x + 1$ , find:
  - (a)  $f(2) = ?$
  - (b)  $3 \xrightarrow{f} ?$
  - (c)  $f(-1) = ?$
7. For the function  $f$  given below answer the following questions:



- (a)  $f(A) = ?$
- (b)  $C \xrightarrow{f} ?$
- (c)  $f(13) = ?$
- (d)  $f(D) = ?$

8. Find the slope and intercept of the line  $4x + 2y = 16$ .
9. Find the slope of a line perpendicular to the line  $y = 2x - 8$ .
10. For the graph shown below find:
- (a) The slope
  - (b) The x intercept
  - (c) the y intercept



11. (Extra Credit) Draw a Hitomezashi stitch pattern.