1 *Consider the equation*

$$2x + y = 9.$$

Find a point on the graph of this equation whose y-coordinate is -1. *(Show what numerical calculation you make or what equation you solve.)*

I set $y = -1$ and solve for x:

$$\begin{aligned} 2x + y &= 9; \\ 2x + (-1) &= 9; \\ 2x &= 10; \\ x &= 5. \end{aligned}$$

Therefore, the point in question is

$$(x, y) = (5, -1).$$

2 *Consider the equation*

$$y = -2x + 5.$$

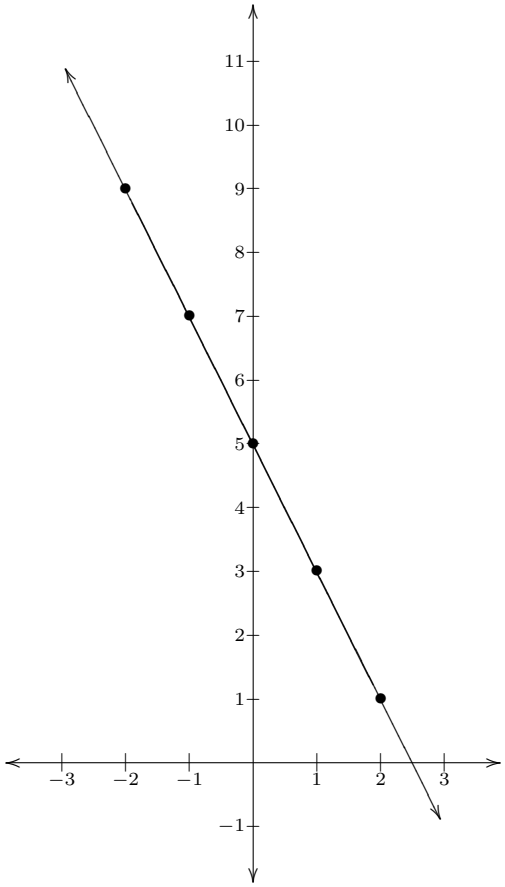
a *Pick three different values for* x *and make a table of values showing the corresponding values of* y.

For thoroughness, I'll pick five values: $x = -2, -1, 0, 1, 2$.

x,	$y = -2x + 5$;
-2,	$-2(-2) + 5 = 9$;
-1,	$-2(-1) + 5 = 7$;
0,	$-2(0) + 5 = 5$;
1,	$-2(1) + 5 = 3$;
2,	$-2(2) + 5 = 1$.

b *Using your table of values, draw a graph of this equation. (Be sure to label the scale on your axes!)*

I plot these five points and draw a line through them, with arrows on the end since it keeps going. The graph is on the next page:


11
10
9
8
7
6
5
4
3
2
1
−1
−3
−2
−1
1
2
3