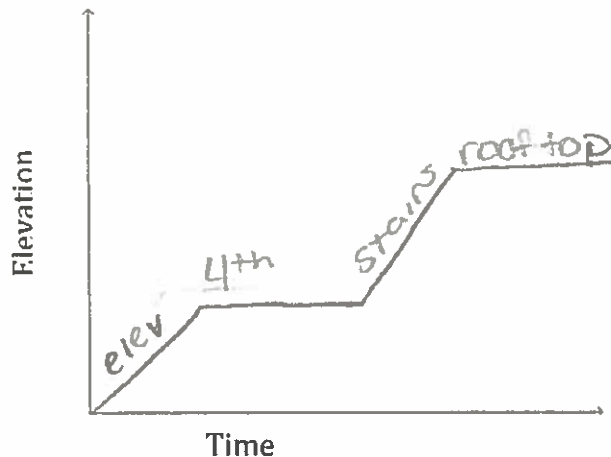


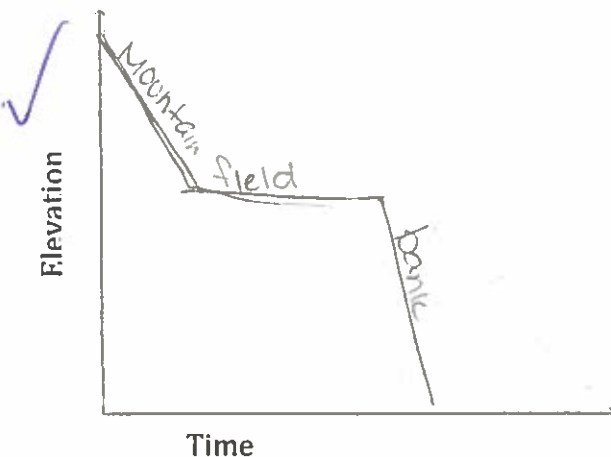
Elevation vs Time Graphs

- Moving more quickly will result in steeper slope.
- Pausing or moving at the same height will result in a flat line.

1) A worker went up an elevator at a steady pace. She got off at the fourth floor and walked across the hall. Then she took the stairs because she could climb faster than the elevator. She got off at the rooftop and worked up there for a while.



2) A hiker starts at the top of a mountain and walks steadily down. About halfway down, he reaches a field and walks across the field. Then he hikes down a steep bank. Finally he rests.



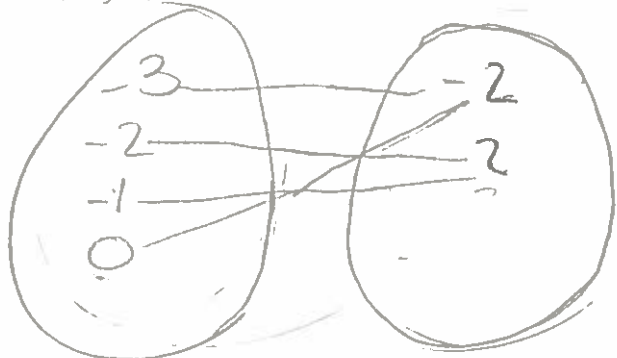
Functions - Mapping Diagrams

- The arrows must point from left to right, from domain (x) to range (y).
- The relation can only be a function if each item in the domain matches only one item in the range.
- However, items in the range may have more than one match in the domain.

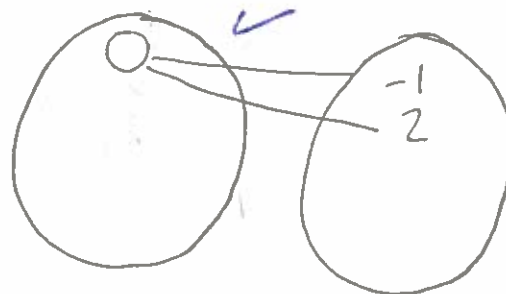
Draw a mapping diagram for the relation. Decide whether the relation is a function. Say WHY.

3) $\{(-3, -2), (-2, 2), (-1, 2), (0, -2)\}$

4) $\{(0, -1), (0, 2), (0, 2), (0, -1)\}$



yes b/c each input has one output

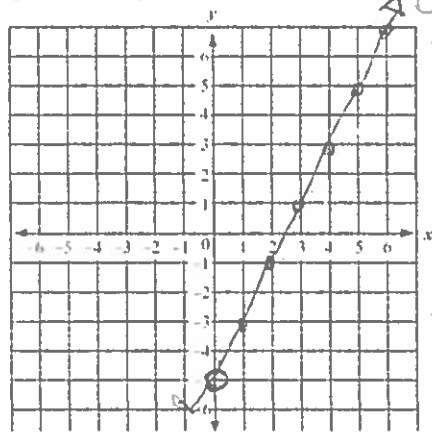


Not a function b/c they have more than one output

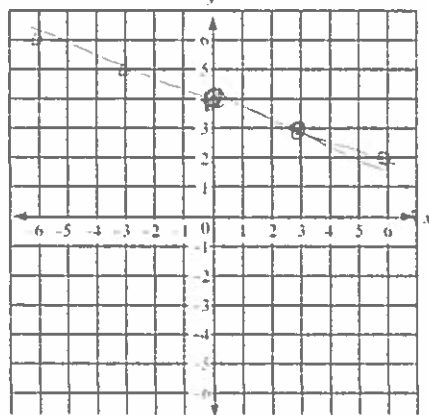
Graphing Slope-Intercept Form

- Start at the y-INTERCEPT on the y-AXIS. (b in the $y = mx + b$)
- Do RUN according to the SLOPE. (m in the $y = mx + b$)

1) $y = 2x - 5$



2) $y = -\frac{1}{3}x + 4$



- Remember! Increasing graphs always have POSITIVE slope.
- Remember! ~~de~~ Increasing graphs always have NEGATIVE slope.

Tables in Slope-Intercept Form

- Find the rate of change by finding the patterns in the variables. $\frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$
- Find the y-intercept by finding the point where $x = 0$.

3)

X	Y
-3	4
0	2
3	0
6	-2

b is @ (0, 2)

$m = \frac{-2}{3}$

$y = -\frac{2}{3}x + 2$

4)

X	Y
-2	5
-1	10
0	15
1	20

b is @ (0, 15)

$\frac{5}{1}$

$y = \frac{5}{1}x + 15$