**Linear Equations Quiz Answer Key**

1. What is the equation for the slope of a line?

$$m= \frac{y\_{2-}y\_{1}}{x\_{2}-x\_{1}}$$

1. Identify the slope and y-intercept of Line 2, below.



Line 2: $m= \frac{y\_{2-}y\_{1}}{x\_{2}-x\_{1}}$**=**$\frac{4-0}{0-4}=\frac{4}{-4}=-1$ **y=mx+b -> 4=6/7\*0+b b=4**

1. Without solving, what do you think slope of Line 1 is? Explain your logic.

**1, because Line 1 and Line 2 are perpendicular lines, the product of their slopes should equal -1.**

1. If you were in the middle of an ice rink that has “perfect ice” (no friction),
how would you get off the ice rink? Explain your logic.
* **Blow in the opposite direction.**
* **Throw an object in the opposite direction.**
* **Wave your hands to produce wind in the opposite direction.**

**These actions work because the floor has no friction so the only way to move is through reaction forces / propulsion.**