Name: _____

**Linear Story Problems Worksheet**

1) Al, Bo, and Ed are all reading a book. Who is reading the fastest? Who is reading the slowest? In each situation, "x" represents the number of hours they have been reading today and "y" is the page number of the book they are on.

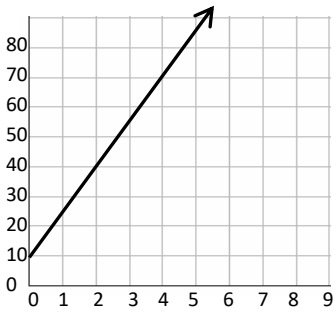
Al's Reading

**y = 20x + 70**

Bo's Reading

| x | y |
|---|---|
| 0 | 100 |
| 3 | 136 |
| 6 | 172 |
| 9 | 208 |
| 12 | 244 |
| 15 | 280 |

Ed's Reading




2) a) Paul started the day with an irrigation pipe 120 feet long. He used the equation L = 15s + 120 to determine the total length of the pipe as new sections (s), were added to the end of it. What is the SLOPE and what does it represent?

b) Farmer Al had a well on his property that was 200 feet deep. When the well went dry, he hired a company to drill the well deeper. He used the equation d = -75t – 200 to find the depth of the well, d, based on the number of days (t) the company drilled. What is the SLOPE and what does it represent?

c) Laura lights a candle in her kitchen. The height of the candle in inches (y) is represented by the equation y = -½x + 6, where x is the time in hours the candle has been burning. What do the –½ and the 6 represent in terms of this situation?

3) Doug and Rocko both had low batteries on their smartphones, and started charging them at 2:00. Even though Doug's phone started with less charge, he bet Rocko that his phone would finish charging faster. At 2:06, Doug's iPhone was at 17%. At 2:14, Doug's iPhone was at 33%. Meanwhile, Rocko's phone charged 1.5% every minute, and at 2:10, his phone was at 34%.

   a. How much charge did each of their phones have at 2:00 when they plugged them in?

   b. When will each of their phones finish charging? Will Doug win his bet?

4) Diane wrote the ordered pairs (4, 1), (6, 7), and (10, 19). These ordered pairs satisfy a linear function. Which ordered pair satisfies the **same** linear function? Use TWO of the following methods to solve this: table, equation, graph, slope formula.

   A. (8, 11)
   B. (13, 28)
   C. (11, 27)
   D. (16, 32)