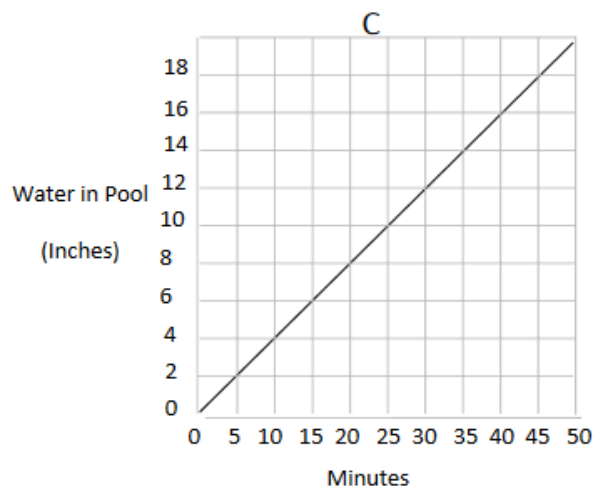
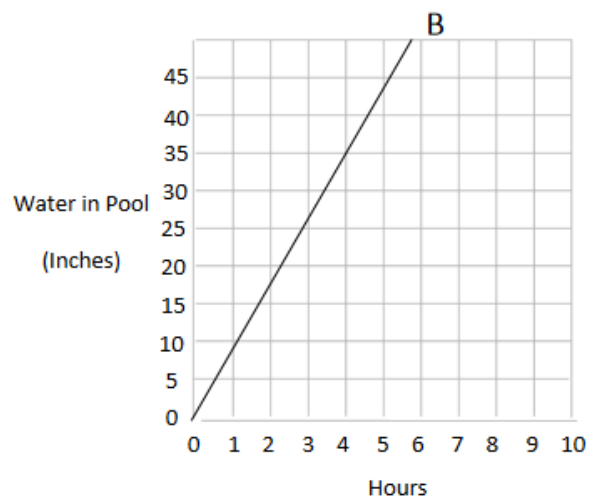
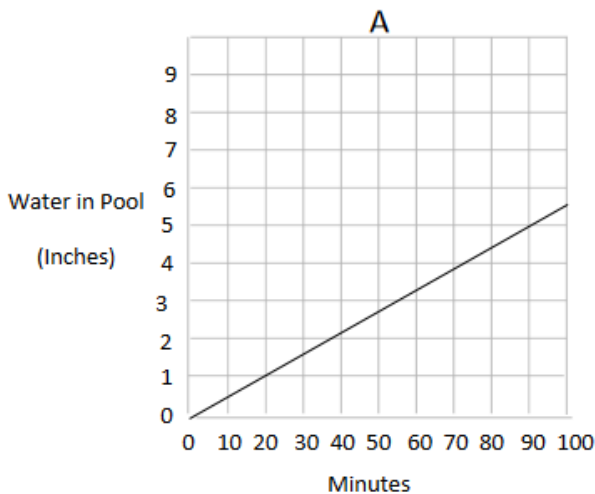


**Activity 2: Filling the Swimming Pool**

Susan works for the Department of Water Works in her town. She has received complaints about water flow rate in different neighborhoods of her town. To investigate the complaints, Susan found three identically shaped swimming pools in various neighborhoods that she used to help her determine the flow rates. She used the same equipment and measuring tools at each location in order to measure the flow rates. Susan began to fill each pool with water, and then she graphed the results, as shown.

- Graph A represents the first pool.
- Graph B represents the second pool.
- Graph C represents the third pool.



## Activity 2: Filling the Swimming Pool

1) Which pool has the fastest flow rate?

- What is the slope of the line that represents the fastest constant rate?
- Write an equation for this function.

2) Which pool has the slowest flow rate?

- What is the slope of the line that represents the fastest constant rate?
- Write an equation for this function.

3) Describe the process you used to determine your answers. Use what you know about proportional relationships and the constant of proportionality to justify why your answers are correct.

4) At the next meeting of the Department of Water Works, Susan must share her findings. To help Susan justify her findings, write a brief summary on about the direct relationship between the number of inches of water added to the pool and the number of minutes the hose was running. Include all calculations that you used to determine the answers to Tasks 1 through 3. Be sure to accurately use the terms, unit rate, the constant of proportionality, slope, and function.