

1. Water is being poured into pool A at a constant rate of 10 gallons per hour and it takes exactly one full day to fill. Create a table representing the pool being filled over the next 24 hours. Then create a graph representing the situation.



Hours	gallons



2. Water is being poured into pool C at a constant rate of 20 gallons per hour for the first 8 hours. After the first 12 hours the pool employees slow down the rate to just 5 gallons per hour. The pool was full 12 hours after they started filling. Make a graph representing the situation.

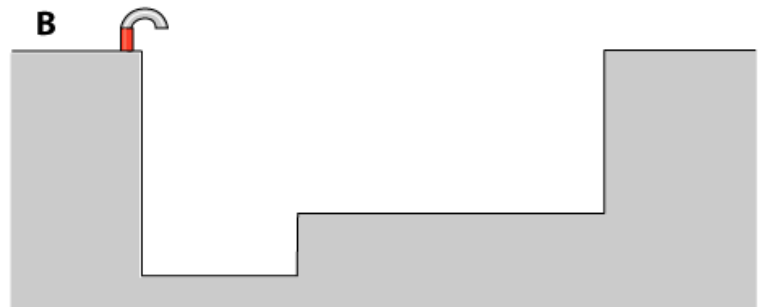




3. Water is being poured into pool D at a constant rate of 5 gallons per hour during the first 4 hours. Dennis comes along and thinks it will be fun to make the water go in as fast as possible and turns the valve on full speed, 50 gallons per hour. After 3 hours Monica discovers the valve George messed with and turns it back to a more reasonable rate of 15 gallons per hour. The pool fills at this rate for the next 12 hours. Create a graph that represents the situation.



4. Consider pool B. Pool B will be filled at a constant rate of 10 gallons per hour. Consider how the depth of water, in meters, would change with respect to time.



a. Would the depth of water change at a constant rate during the time it took to fill the pool? Would there be times when the depth changed at a faster rate or slower rate? If so, when would that occur?

b. Describe how a graph relating **Depth of Water** and **Time** might look for pool B.