**Part A. Provide answers to the following problems**.

1.    A car has 16 gallons gas tank. On a long highway trip gas is used at the rate of about 2 gallons/hr. The quantity of gas (in gallons) can be modeled by the equation, *G = 16-2t*, G stands for gas, and *t* is for time in hours. At the end of the trip, there are 2 gallons of gas left. How long was the trip (in hours)? Use algebraic method to solve this problem.

2.    A woman got a job at a starting salary of $35,000 a year. If she received an 8% raise on each additional year, how much would her salary be at the beginning of the tenth year? Use future-value method [**ŷ = C \* (1 + r)*t*-1 ]** where ¿C¿ is the base value, ¿r¿ stands for rate of increase and ¿t¿ stands for time.Show your work.