## Applications of Linear Graphs

1. A car rental company charges a daily rate plus a charge per km driven. The charge for one day with 30 km driven is $\$ 35$, while the charge for one day with 80 km driven is $\$ 60$.
a) What is the cost for each km driven?
b) How much would it cost for one day with 100 km driven?
c) Write an equation for the cost (C) related to the distance driven (d)
2. For his $14^{\text {th }}$ birthday, Frankie's grandmother gave him some spending money. Every week, he spent some of that money on video games, food, and going to the movies. He kept track of the balance in his back account.

| Money in account <br> $(M)$ | 220 | 180 | 140 | 100 |
| :--- | :--- | :--- | :--- | :--- |
| Number of weeks <br> $(w)$ | 2 | 4 | 6 | 8 |

a) How much money did Frankie start with in his account?
b) Write an equation for the amount of money in the account (M) related to the number of weeks (w).
c) Plot a graph of the money in the account and the number of weeks.

d) If the spending continues, when will Frankie run out of money? (You can use your graph or equation!)

