**REVIEW: DETERMINE THE EQUATION in y = mx + b m = slope b = y intercept**

**a) *From a Word Problem***

You want to rent a hardwood floor sanding machine. The rental cost is $50 for 3 hours and $110 for 9 hours.

a) There are two variables in this problem: **time** and **cost**. Fill the chart below:

|  |  |  |
| --- | --- | --- |
| **Variable** | **Dependent/Independent** | **Axis** |
| Time |  |  |
| Cost |  |  |

b) Label the graph based on your chart above. *Choose an*

*appropriate scale for each variable…*

c) Plot the given info on the Cartesian plane and calculate the slope.

**Slope** (m) is \_\_\_\_\_\_ .This is rental cost **per** 1 hour.

d) Determine the cost for 0 hour either from the graph or a table of values. *This is the y-intercept (b) or initial fee…*

e) Using c for cost and h for the number of hours, determine the equation that represents this situation.

f) **Extrapolate** the rental cost for 24 hours using the equation above

***b) From a Situation***

|  |  |  |
| --- | --- | --- |
| **Situation** | **Variables** | **Equation** |
| A printing job costs $150 plus $25 per set. | c , s |  |
| Photofinishing costs $3 plus $4 per set of 12 pictures. | c , s |  |
| The amount of fuel in a gas tank is 50 litres minus the amount used which is 0.12 litres per kilometre driven. | a , d |  |
| The cost of hiring a disc jockey for a dance is $40 plus $20 per hour. | c , h |  |

**MAKING A SOUND FINANCIAL DECISION - ­­*BREAK EVEN PROBLEMS***

**Movie Night**

There are two payment options for downloading movies from a Web site:

**Option A:** Pay $30 for a membership and $2 per movie downloaded.

**Option B:** Pay $4 per movie download.

**Determine under which conditions a person should select Option A and under which conditions a person should select Option B.**

**Justify your answer.** *Hint: Graph each situation on the plane below.*

