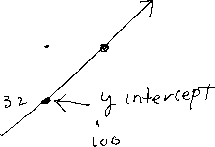
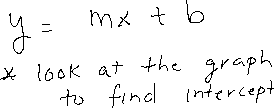
**Ch 5 Linear Applications and Modelling (Day 4)**

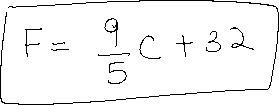
**Example:** Water freezes at 32 degrees F and 0 degrees C. Water boils at 212 degrees F and 100 degrees C. Graph the linear relation between C and F and find a formula to convert Celsius to Fahrenheit.



F



C



**Example:** It costs a popcorn vendor $490 to make 150 bags of popcorn and $610 to make 350 bags



1. Graph the linear relation between cost and number of bags



1. Find the cost equation



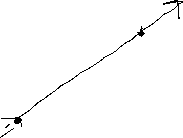
1. Find the fixed cost



1. Find the cost of 250 bags of popcorn



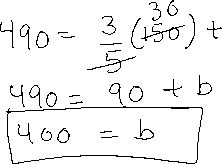
1. How many bags of popcorn can be bought for $724



Cost ©



Bags of Popcorn



Example 3: A car insurance company pays for 70% of all damage less a $200 deductible per year.



a) Write a function that models the family’s insurance costs.



b) Determine the amount that insurance will pay on $1250 damage.



c) Determine the damage amount if the plan paid $1250.



d) Graph the function and label answers from b) and c)



