ARNR 434 Homework Set #1
Fall 2009 Due 9-22-09
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You are the manager of a commercial cow/calf beef operation (MBN Cattle Co).

#1. Develop a balance sheet for the past year (2009) using the following information:

Checking Account Balance	15,000
Savings Account Balance	25,000
Cattle Inventory	300,000
Hay Inventory	30,000
Land Value	1,000,000
Accumulated Machinery Depreciation	90,000
Buildings & Improvements	900,500
Machinery Value	450,000
Accumulated Building Depreciation	185,000
Prepaid 2010 Expenses	42,000
Accrued Expenses	33,000
Accounts Payable	235,000
Accounts Receivable	10,000
Notes Payable	150,000
Machinery Loan Balance	89,000
Real Estate Loan Balance	350,000
2009 Corporate Income Tax Payment	150,000

Construct the Balance Sheet in Excel with proper headings and formatting.

#2. Develop an income statement for the operation using the following information:

2009 Calf sales	515,000
2009 Cull cow sales	45,000
2009 Salaries and Benefits	255,000
2009 Utility Expense	34,000
2009 Gas, Fuel, Oil	40,000
2009 Machinery Depreciation	25,000
Prepaid 2010 Expenses	42,000
2009 Building Depreciation	49,000
2009 Repairs and Maintenance	19,000
2009 Property Taxes	57,000
Accumulated Machinery Depreciation	90,000
Accumulated Building Depreciation	185,000
2009 Insurance and Licenses	30,000
Interest Payment on Machinery Loan	25,000
Interest Payment on Real Estate Loan	59,000
2009 Corporate Income Tax Payment	150,000
2009 Hay Sales	75,000
2009 Cost of Goods Sold	375,000

2009 Purchased Feed	30,000
2009 Chemicals	2,000
2009 Storage	23,000
2009 Veterinary Expenses	50,000

Construct in Excel as well.

#3. We have talked about the theory of optimums. You are the manager of a ranch for several investors. The ranch is a cow/calf operation that backgrounds feeder calves and retains ownership. Your objective is to maximize profits during the backgrounding process. The ranch wants to put weight on these calves by using hay plus a simple grower pellet. The calves respond differently to the amount of pellet fed. Complete the following table which describes the cost relationships associated with various lbs. of pellet used to produce pounds of calf. Pellets are the only variable cost.

Price of pellet: $.25/lb. This example is for 1 feeder calf.
Price of feeder calves: $1.25/lb.

Pellets (lbs. fed/day)	**Calf weight produced (lbs./day)**	**TFC ($/day)**	**TVC ($/day)**	**TC ($/day)**	**TR ($/day)**	**MC ($)**	**MR($)**
0	.5	1				--	--
1	.9	1					
2	1.25	1					
3	1.45	1					
4	1.63	1					
5	1.33	1					

a. How many pounds of pellets should each backgrounded calf receive to maximize profits? Why is this the profit maximizing level?

b. How much profit/day is realized if the profit maximizing level of pellets is fed?

c. How much profit/day is realized if the output maximizing level of pellets is fed?