

## Lecture Assignment 9

1. Suppose Sam sells apples picked from his apple tree in a competitive market. Assume all apples are equal in quality, but grow at different heights on the tree. Sam, being fearful of heights, demands greater compensation the higher he goes: So for him, the cost of grabbing an apple rises higher and higher the higher he must climb, as shown in the Total Cost column in the following table. The market price of an apple is \$0.50.

a. Complete the table.

Apples	Total Cost	Marginal Cost	Marginal Revenue	Change in Profit
1	\$0.10	\$0.10	\$0.50	\$0.40
2	\$0.22			
3	\$0.50			
4	\$1.00			
5	\$1.73			
6	\$2.78			

b. How many apples does Sam pick?

2. Sudoku: complete the table

Quantity	Total Cost	Fixed Cost	Variable Cost	Average Cost	Marginal Cost	Total Revenue	Profits
0				—	—		-\$80
10					\$4		
20	\$200						
30			\$240			\$450	
40							
50				\$13.60	\$20		