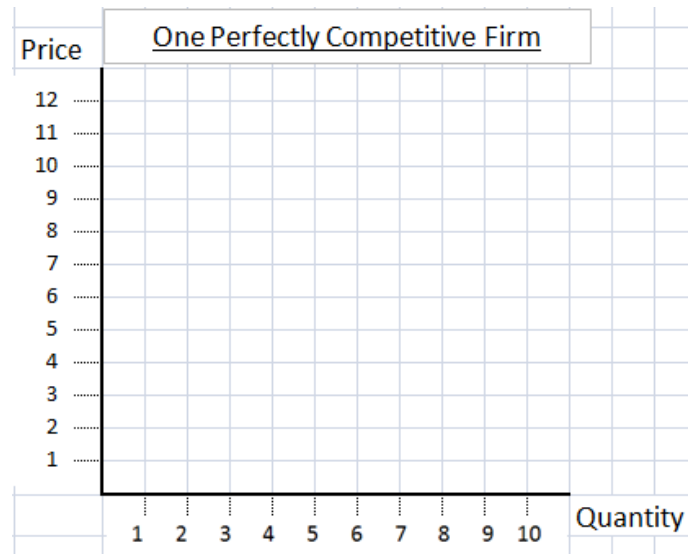




When life gives you snow... sell snow-cones!

1. Instead of looking at your cost data on a chart, imagine you wanted to look at it on a graph.
 - a. Using the same cost data (rewritten below), please calculate and graph MC and ATC. Approximately where does the MC curve intersect the ATC curve?

Quantity produced (# units)	Total cost	Marginal cost ($\Delta TC/\Delta Q$)	Average total cost (TC/Q)
0	10	-	
1	13		
2	15		
3	16		
4	17		
5	19		
6	22		
7	26		
8	31		
9	37		
10	45		



- b. In a perfectly competitive market, the firm is a price-taker, which means it receives the market price for each unit. If the market price is \$5, what will the marginal revenue be for the 1st unit? 4th? 9th?
- c. On the graph, draw the marginal revenue curve for a competitive firm who takes the equilibrium price of \$5. If the equilibrium price is \$5, what quantity of cones will the firm produce?
- d. Describe the relationship between MC and MR at the equilibrium price.
- e. What is the firm's revenue? Profit or loss?
Please identify the area of profit or loss on the graph. (Please ask if you are having trouble doing this.)
- f. With a market price of \$5, is there an incentive for more firms to enter the market or for some firms to exit (stop producing)? Explain.
- g. What do you think will happen to profit or loss in the long-run?

Extra: In perfect competition, why does controlling a firm's cost matter so much? Can you extend this to speculate a reason why American agriculture has experienced a large consolidation in the past century? Think about economies of scale in the long-run.