Econ 1101
Practice Questions about Monopoly

Congratulations! You have just invented a software program that eliminates all email spam and does your laundry as well. You have obtained a patent on the software which will give you a monopoly for 20 years. You have hired a Ph.D. economist to estimate the demand curve for your new product and the results are tabulated in columns one and two in the table below.

(a) Fill in the column labeled "Revenue." Use only whole numbers and don't include any units (just the number.).

| Q	P	Revenue	Marginal Revenue
0	6	0	6
1	5	5	4
2	4	8	2
3	3	9	0
4	2	8	-2
5	1	5	-4
6	0	0	-6

(b) The marginal revenue **between** Q=0 and Q=1 is 5 dollars (this is the difference in revenue between Q=0 and Q=1). The marginal revenue **between** Q=1 and Q=2 is 3. The marginal revenue **at** Q=1 is 4. (This is the midpoint of the two previous numbers.) ((5+3)/2=4) Fill in the marginal revenue at Q=1 in the table above.

(c) Plot marginal revenue in the graph below. Use the rule from class (which works when demand is linear) that marginal revenue has the same vertical intercept as demand and twice the slope. Use the information from the graph to fill out the rest of the marginal revenue column in the table.

(d) Revenue is maximized at a quantity of 3 units where price is 3 dollars and marginal revenue is 0 dollars.

(e) Suppose your ATC = MC = $2 **for all Q**. Plot your MC in the graph below.

DWL of Monopoly
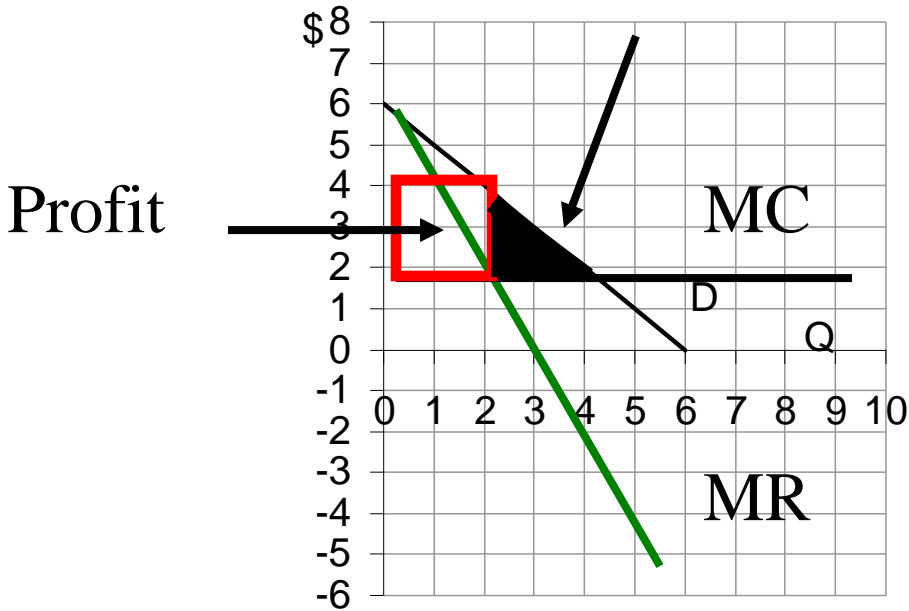
(f) The profit-maximizing monopoly quantity is where MR = MC. Using this rule, the monopoly quantity is 2 units.

(g) The monopoly price is 4 dollars.

(h) The monopoly profit is 4 dollars.

(i) Illustrate the monopoly profit in your graph.

(j) Fill in the table below. Illustrate the change in total surplus in the graph above. Label it DWL (for dead weight loss of monopoly).

	Competition	Monopoly	Change (moving from competition to monopoly)
Q	4	2	-2
P	2	4	+2
CS	8	2	-6
PS	0	4	+4
TS	8	6	-2

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