

Errata file for
“Industrial Organization:
Practice Exercises with Answer Keys” Springer

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1. **Chapter 1.**

- Exercise 1.17(b). Page 47. The sixth line of the page should read “Taking the first order condition with respect to A , yields ”
- Exercise 1.17(c). Page 48. The fourth and fifth lines of the page should read “a larger α indicates that advertising expenditures are more efficient at boosting demand. ”

2. **Chapter 2.**

- Exercise 2.8(b). Page 74. The sixth displayed equation of the page should read: “Rearranging and solving for q_1 , we find firm 1’s equilibrium output

$$q_1^* = \frac{n(1-c) - (n-1)(1-c')}{n+1}.$$

which is positive since $n > n-1$ and $1-c \geq 1-c'$. We can finally insert this output level into firm i ’s best response function to find its equilibrium output, that is,

$$\begin{aligned} q_i^* &= \frac{1-c'}{n} - \frac{1}{n} \left(\frac{n(1-c)}{n+1} - \frac{(n-1)(1-c')}{n+1} \right) \\ &= \frac{1+c-2c'}{n+1}. \end{aligned}$$

- Exercise 2.8(c). Pages 74-75. Last sentence of the page should read: “Evaluating firm 1’s equilibrium output at $c = c'$, we obtain

$$\begin{aligned} q_1^* &= \frac{n(1-c) - (n-1)(1-c)}{n+1} \\ &= \frac{1-c}{n+1} \end{aligned}$$

Similarly, evaluating its rivals’ equilibrium output at $c = c'$, we find

$$\begin{aligned} q_i^* &= \frac{1+c-2c}{n+1} \\ &= \frac{1-c}{n+1} \end{aligned}$$

where $q_1^* = q_i^*$ coincides with the equilibrium output in a standard Cournot model with n symmetric firms. ”

- Exercise 2.8(d). Page 75. The answer should read: "First, recall that, as found in part (b), firm 1 is unambiguously active. However, each of its rivals is active if and only if $q_i^* \geq 0$, or

$$\frac{1 + c - 2c'}{n + 1} \geq 0$$

which, solving for firm i 's costs, c' , simplifies to

$$c' \leq \frac{1 + c}{2} \equiv \bar{c}$$

Therefore, when $c' \leq \bar{c}$, all firms are active. Otherwise, only firm 1 is active, as it benefits from a sufficiently strong cost advantage."

- Exercise 2.8(e). Page 75. The answer should read: "When $c = c'$, the inequality in part (d) becomes

$$c \leq \frac{1 + c}{2}$$

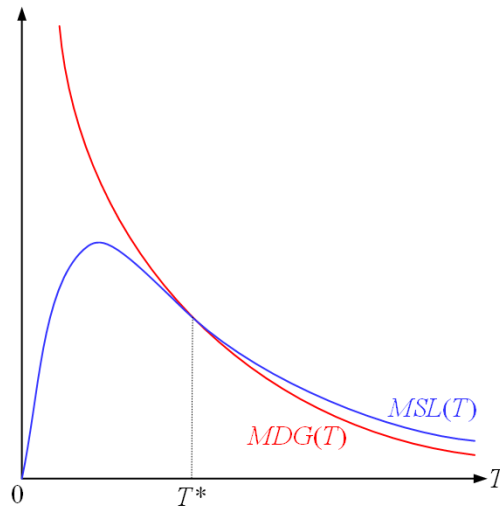
that simplifies to $c \leq 1$; a condition that holds by definition, so that all firms produce positive units when they are cost symmetric (as in the standard Cournot model with n symmetric firms)."

3. Chapter 3.

- Exercise 3.8, page 126, line 18 should read "... the entrant's profits should deduct the fixed costs F ."

4. Chapter 6.

- Exercise 6.6. Page 254. Line 12 should change "their individual " to "its individual."
- Exercise 6.7. Page 258. The last line should read "..., is positive for all $\beta \in [0, 1]$."
- Exercise 6.11. Page 276. Figure 6.6 should be replaced with the following figure.



The last paragraph of this exercise should read "...and the $MSL(T)$ curve, which is concave in T , and their crossing point at the socially optimal patent length, T^* . It is beyond the scope of this exercise, but you may check that, indeed, the $MSL(T)$ curve originates at $MSL(0) = 0$, increases in T , reaches a maximum at $T = \frac{\log 2}{r}$, and then decreases in T ."

- Exercise 6.12.
 - Page 276. Add the following sentence immediately after the description in line 10: "For simplicity, consider $\frac{1}{2} \leq c \leq 1$."
 - Page 277.

* The second expression should read

$$S(T) = \frac{e^{-rT} \left[\frac{(1-\frac{c}{\alpha})^2}{2} - (1 - e^{rT}) \left(\frac{(1-c)[\alpha(1+c)-2c]}{2\alpha} \right) \right]}{r},$$

and the third expression should read

$$S(T) = \frac{e^{-rT}}{2\alpha^2 r} \left[c^2 (\alpha - 1)^2 + e^{rT} \alpha (1 - c) (\alpha + \alpha c - 2c) \right].$$

* Line 5. Remove “(an implicit condition suffices)”

* The fifth expression should read

$$S(T) = \frac{e^{-rT}}{2\alpha^2} \left[\alpha (1 - c) (\alpha + \alpha c - 2c) - (\alpha - c)^2 \right],$$

* Lines 8 to 12. Remove the following phrases “For an interior solution of T , $MSL(T)$ must be increasing in T , ... when $s = 0.05$. ”

– Page 278.

* Line 1. Change to $c = 0.9$.

* Line 2. Change to $T = 43.9$.

* Line 5. Change to 37.8 years.

5. Chapter 7.

- Exercise 7.16, page 329, line 2 should read “... δ_{pre} , found in part (a).”