Errata for Simon *et al.* (1994)

Participants of Mathmatics for Economics Classes

2017년 5월 23일

1 p.13

- $f_2(x) - x^7$ in caption for figure2.2 should be $f_2(x) = -x^7$ (2017sp 백지연)

2 p.16

$y = (x-1)/(x^3+3x+2)$ is just a typo. This equation should be

$$y = \frac{x-1}{x^2+3x+2}$$

3 p.49

- 6th line: $5x + 6$ should be $5x - 6$ (2016f 송영석)

4 p.57

In example 3.6,

$$f(20) = 4500$$

(2017sp 백지연)

5 p.67

- Figure 3.20: y intercept is a (not b) (2016sp 이준현)

6 p.71

- In the Equation (2) of Example 4.2, $P(L) = \Pi(f(L))$ (2016f 송영석)

7 p.177

- The last equation

$$\mathbf{x} = (I - A)^{-1}$$

should be

$$\mathbf{x} = (I - A)^{-1}\mathbf{c}$$

(2016f 배근태)

8 p.192: Theorem 9.2

- Theorem 9.2 should be modified:

> Let A be an $n \times n$ matrix and let R be its row echelon form by only using ERO_1, ERO_2. Then:
>
> $$\det A = \pm \det R$$
>
> If no row interchanges (*i.e.*, ERO_1) and ERO_3 are used to compute R from A, (or equivalently, if only ERO_2 are used,) then $\det A = \det R$

Proof sketch: $\det(EM_1(R_i \leftrightarrow R_j)) = -1, \det(EM_2(R_i \leftarrow R_i + kR_j)) = 1, \det(EM_3(R_i \leftarrow kR_i)) = k$ and use Theorem 9.5(b)

9 p.195

- In example 9.4, "Example 7.1" ⇒ "Exercise 7.2(b)" (2017sp 백지연)

10 p.275

- q_1 should be q_2 (2016sp 이준현)

$$\mathbf{q} = (q_1, q_2) = (f_1(x_1, x_2, x_3), f_2(x_1, x_2, x_3)) \equiv F(x_1, x_2, x_3)$$

11 p.321

The first equation should be:

$$\begin{pmatrix} \frac{\partial F}{\partial x_1}(\mathbf{x}^*) \\ \vdots \\ \frac{\partial F}{\partial x_n}(\mathbf{x}^*) \end{pmatrix}$$

12 p.327

In theorem 14.4,

$$H = F \circ A : \mathbb{R}^s \to \mathbb{R}^m$$

(2016su 박준현)

13 p.311 - 312

In equation (11), (12), and the first equation in page 312, x^* should be $\mathbf{x}^*$

14 p.337

In Figure 15.2, two axis should be x, y, not x_1, x_2 (2016su 이가영)

15 p.342

In Theorem 15.2,

Then, there is a C^1 function $y = y(x_1, \cdots, x_k)$ defined on an open ball B about ...

(2016su 박준후)

16 p.349

In Example 15.12, .. is perpendicular (or normal) to the plane

$$Ax + By + Cz = D$$

(2016su 이가영)

17 p.400

(In Theorem 17.3) Let $F : U \to \mathbb{R}^1$ be a C^2 function whose domain is an open set U in $\mathbb{R}^n$. (2016su 이은지)

18 p.455

In Equation 11,

$$f(x^*(a); a) = f(a; a) = \cdots$$

19 p.458

- D^2 should be: (2016sp 이준현)

$$D^2 f(\mathbf{x}^*) = \begin{pmatrix} \frac{\partial^2 f}{\partial x_1^2} & \cdots & \frac{\partial^2 f}{\partial x_n x_1} \\ \vdots & \ddots & \vdots \\ \frac{\partial^2 f}{\partial x_1 x_n} & \cdots & \frac{\partial^2 f}{\partial x_n^2} \end{pmatrix}$$