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Added Value, Positioning, and Segments

Adam Brandenburger

Exercise #1

There are two firms, labeled *A* and *B*, each able to produce a single unit of a product. There are numerous suppliers, each of which can supply the necessary input to only one firm; each supplier has a supplier cost of \$4. There is one buyer, interested in buying at most one unit. The buyer has a willingness-to-pay of \$9 for each firm's product.

- a. What is the total value of this game?
- b. What is the added value of each player?
- c. How much value do you expect each player to capture?
- d. Now suppose that firm *A* has the option of either playing the game just described, or playing the following modified game. Suppliers still have a supplier cost of \$4 for firm *B*. The buyer has a willingness-to-pay of \$9 (as before) for firm *B*'s product. But now, suppliers have a supplier cost of \$5 for supplying firm *A*, and the buyer has a willingness-to-pay of \$11 for firm *A*'s product. Recalculate the added values of the players, and find how much value each player will capture, in the second game. Which game is it better for firm *A* to choose?

Case: The Wrong Way to Compete

The Rover SD1 (1977) “looked like a Ferrari Daytona, had a V8 engine and fine handling --- but it was built by British Leyland. Shame, because the car could have been a world-beater”

--*Classic Cars*, March 2002

“The management weren’t interested in quality because they were fighting the trade union war. Cars are complicated to make, so you need the workforce on your side, but at British Leyland they often weren’t. If the old (pre-BL) Rover company had made it, it would have been a little bit more expensive but a lot better built.”

--Spen King, former engineering director at Rover Triumph, quoted in *Classic Cars*, March 2002



Case: The Japanese Manufacturing Revolution

The assertion that a given company couldn't "have it all" ... was challenged in the 1980s by ... by the success of elite Japanese companies that ... acted as though economies of scale and long runs were not important, nor were trade-offs necessary. Indeed, many Japanese factories appeared to surpass their American counterparts on several competitive dimensions --- lower cost, higher quality, greater flexibility, and faster product introductions --- all at the same time.

Exercise #2

There are three firms, labeled *A*, *B*, and *C*, each able to produce a single unit of a product. There are numerous suppliers, each of which can supply at most one firm. Each supplier has a supplier cost of \$2 of supplying firm *A*, a supplier cost of \$3 of supplying firm *B*, and a supplier cost of \$5 of supplying firm *C*. There is one buyer, interested in buying at most one unit. The buyer has a willingness-to-pay of \$10 for firm *A*'s product, a willingness-to-pay of \$12 for firm *B*'s product, and a willingness-to-pay of \$13 for firm *C*'s product. Thus, firm *A* is the cost leader in this market, and firm *C* is the differentiator or high-quality provider.

- a. What is the total value of this game?
- b. What is the added value of each player?
- c. How much value do you expect each player to capture?
- d. Which strategic position is the best in this market?

(Hint: Laura Needham, Stern MBA 2008, suggested the term “The Goldilocks Principle of Business Strategy” for what this question is designed to show.)

Definition of a Segment

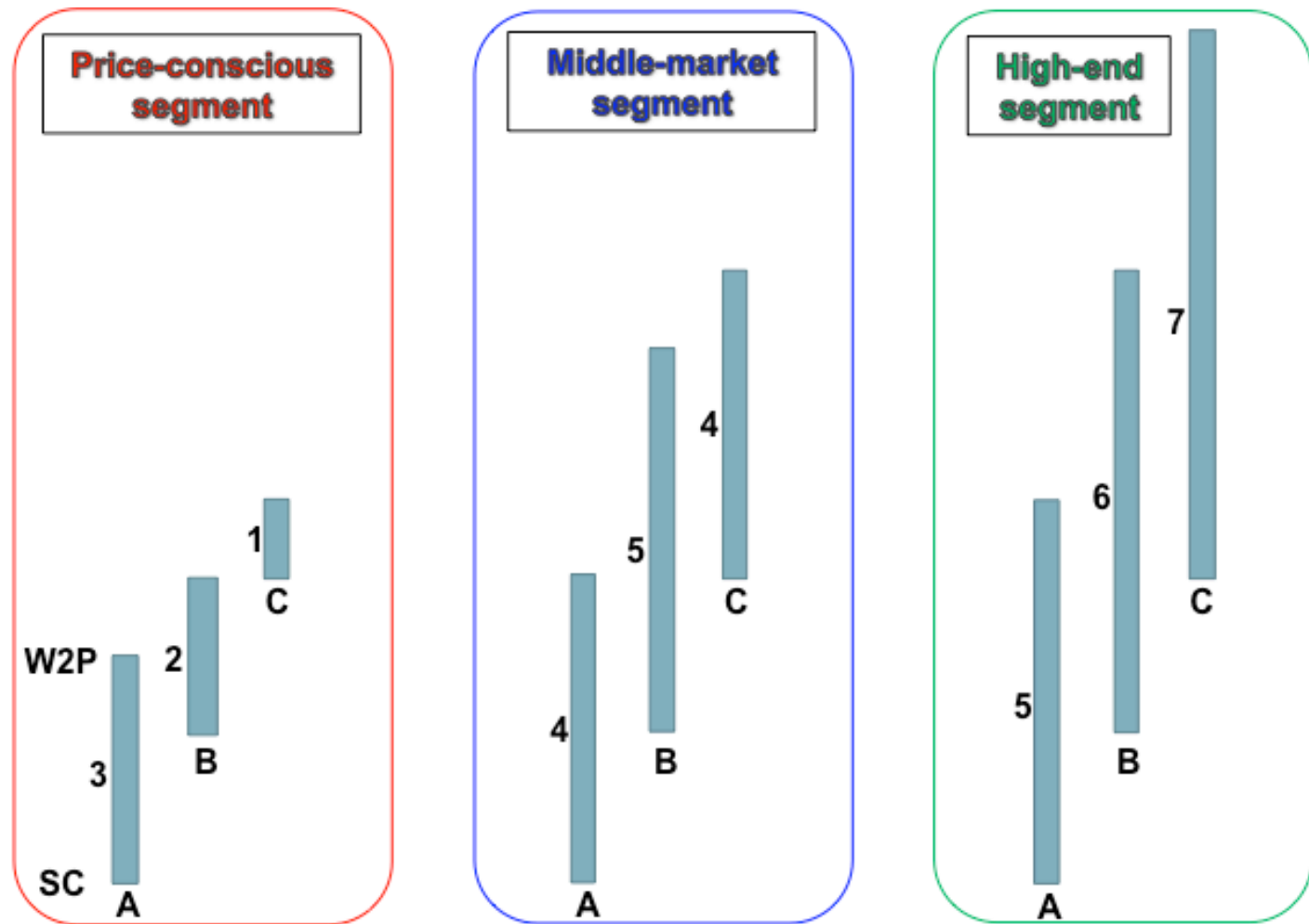
A **segment** is a group of customers such that:

for each business, every customers in the group has the same willingness-to-pay for that business's product

(of course, this common willingness-to-pay can be different for different business)

We could define "supplier segments" in the same way

Exercise #3



Suppose the game is as before, except that now there is one buyer per segment (so, three buyers in total), and each firm is able to produce three units of product.

a. Which firms have added value?

Case: The Cat That Walked By Himself

The next-generation Jaguar XJ8 is likely to draw double-takes when it reaches American showrooms next spring. The new model, which made its public debut at the Paris auto show last month, is scarcely distinguishable from the current car --- itself a clear descendant of the original XJ6 of 1968....

In Paris, the Jaguar's appearance raised eyebrows. Coming a year after BMW revealed its avant-garde 7 Series, the XJ splits luxury car design into two camps: the old and the new....

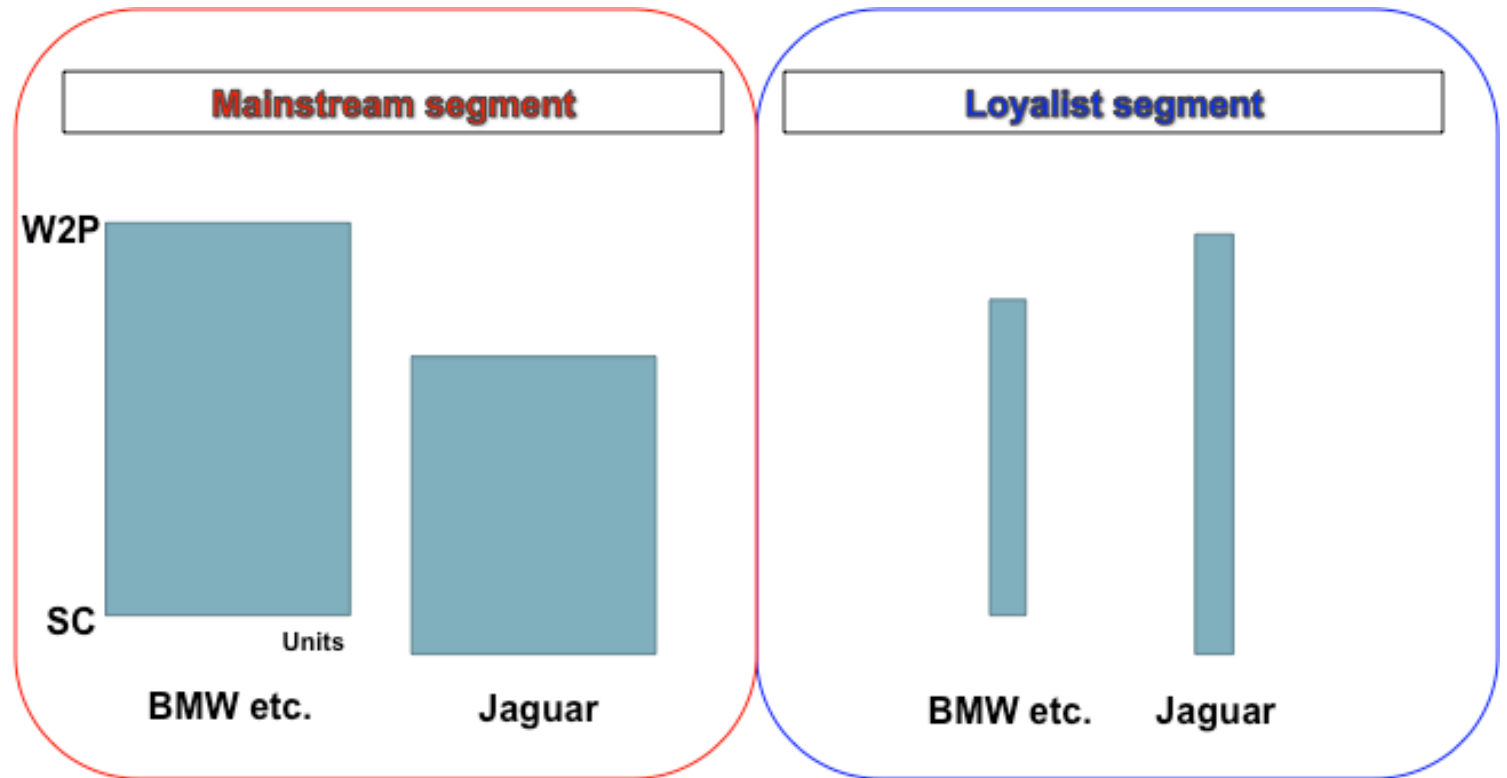
Antony Sheriff, the American in charge of product planning for Fiat-Lancia, said it was easy to understand why Jaguar took such a traditional course. "I'm sure they've got loyal customers out there who wouldn't want anything else." *

Pictures: Wikimedia Commons



* From: "The Shock of the Familiar," by Richard Feast, *The New York Times*, 10/13/02

Case cont'd: Positioning



What are the firms' added values?

Case cont'd: The Cat Strays or Not?

... Jaguar officials used the Frankfurt show to formally unveil a new version of the brand's XK Coupe, a model that marks a big U-turn in styling for the car maker. Accented by big tires that fill the wheel wells, exterior "wing vents" on the car's flanks and a prominent "power bulge" on its hood, the XK has a far edgier look than past Jaguar models, long known for their English-style refinement and formal lines....

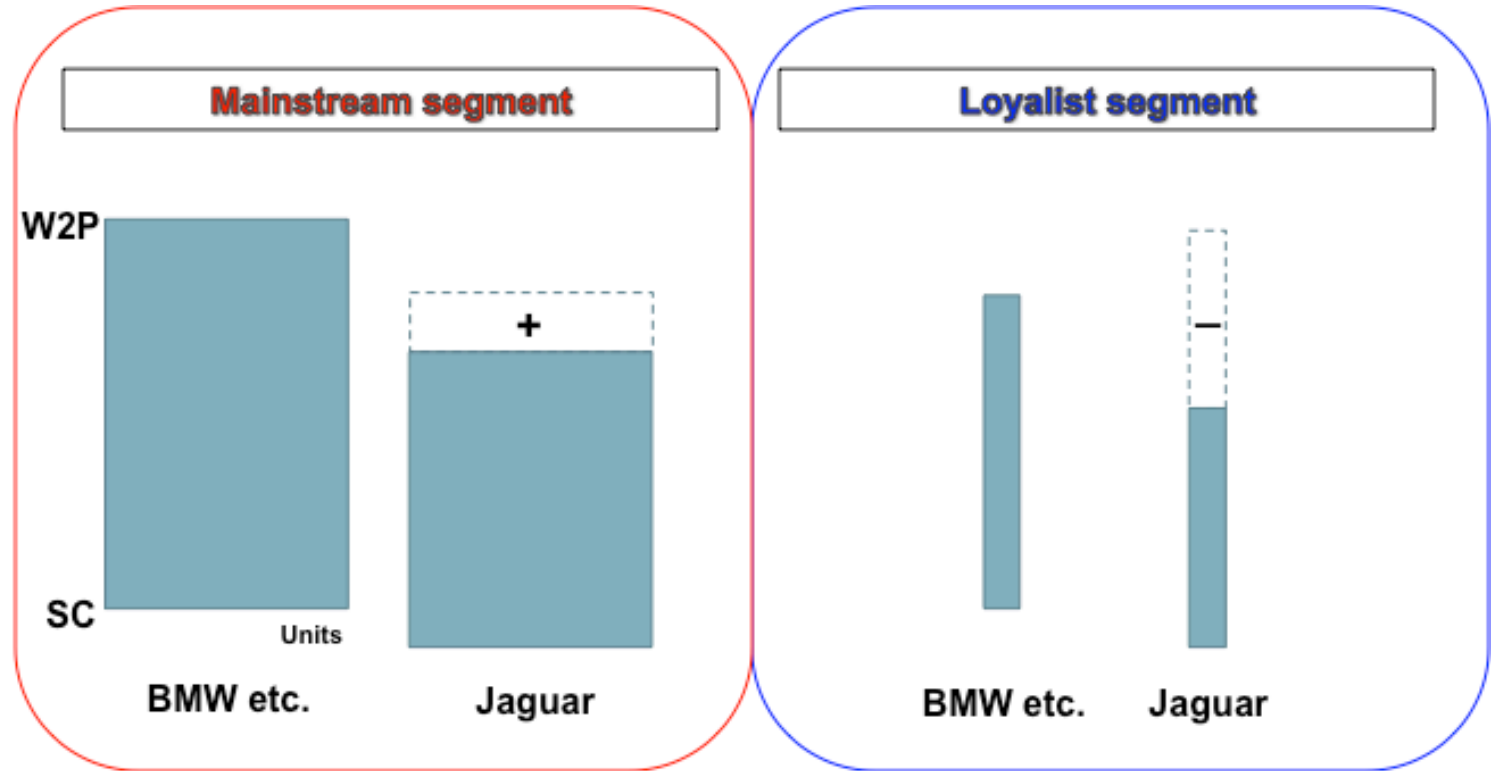
With seven months to go until the XK goes on sale in the U.S., it's not clear how longtime Jaguar fans will react to the model's new look. The car will be competing in a tough segment of sporty cars that includes the Mercedes Benz SL from DaimlerChrysler AG, BMW AG's 6-Series and Porsche AG's 911. Although Ms. Boerio [managing director of Jaguar] said she is pleased with reviews at private viewings organized by the company for longtime Jaguar owners in Europe, some industry observers see a risk that Jaguar has strayed too far from its heritage. *



Picture: Wikimedia Commons

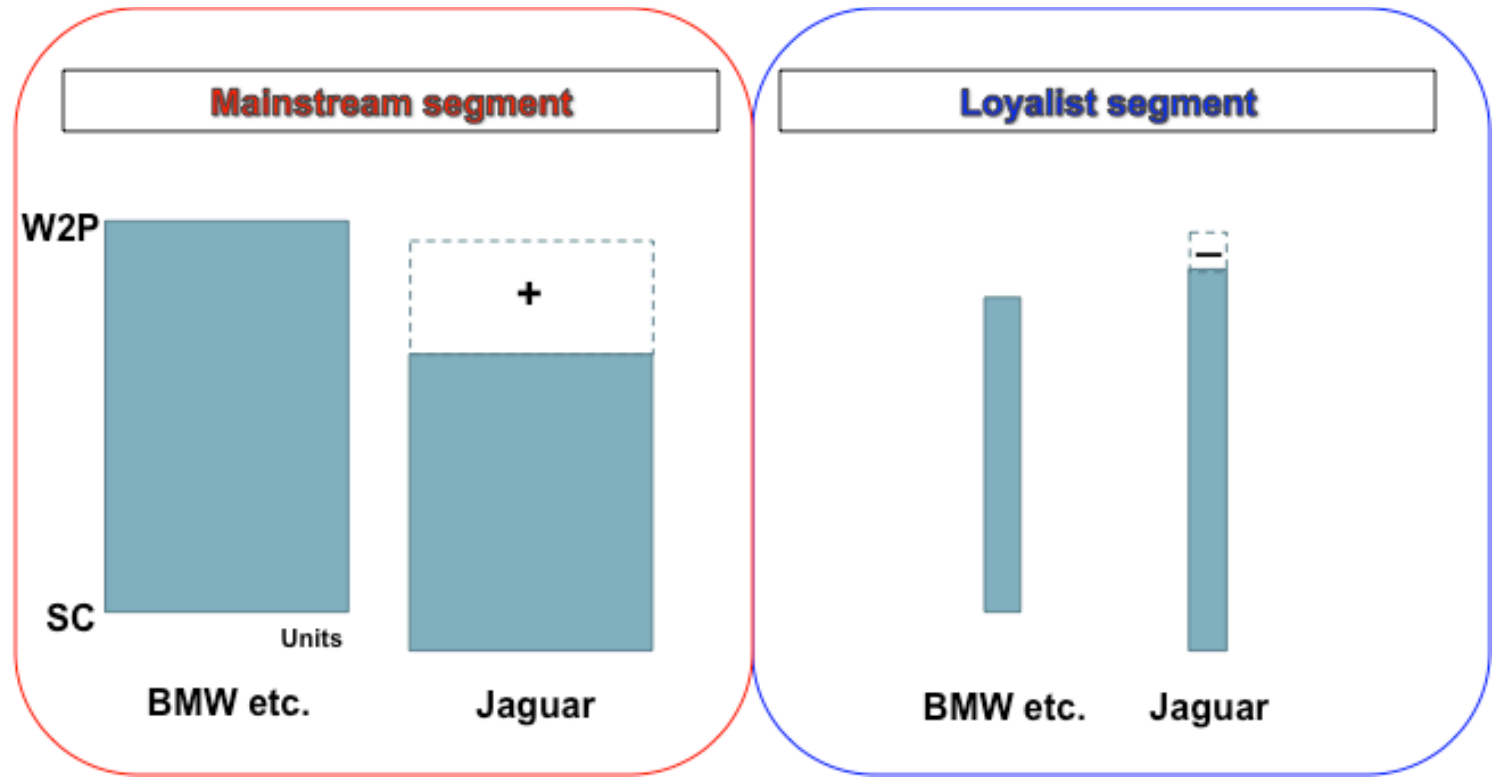
* From: "New Signs of Trouble at Jaguar Overshadow Coupe's Debut," by Stephen Power, *WSJ*, 09/15/05

Case cont'd: Repositioning Hypothesis #1



What are the firms' added values now?

Case cont'd: Repositioning Hypothesis #2



What are the firms' added values now?

Exercise #4

There are two firms that can each produce a single unit of a product. There is one supplier, which can supply at most one of the firms at a supplier cost of \$4. There are numerous buyers, each of which would like to buy a single unit of the product from one of the two firms. The buyers have a willingness-to-pay of \$10 for firm *A*'s product, and a willingness-to-pay of \$6 for firm *B*'s product.

- a. What is the added value of each player?
- b. How much value do you expect the supplier to capture? How much do you expect firm *A* to capture?

Now suppose that firm *B* can increase the buyers' willingness-to-pay for its product to \$9 by spending \$1 prior to the game.

- c. Should firm *B* make this investment in increasing its willingness-to-pay?
- d. Should the supplier help fund this investment?

Position →
Speed →
Acceleration

What counts is not just

POSITION --- the gap between W2P and SC

but also

SPEED --- a better improvement process that raises W2P and/or lowers SC faster than others can

and also ...

ACCELERATION --- a better process for improving the improvement process

and also ...

As the Red Queen tells Alice: “Here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast.” *



* *Through the Looking Glass*, by Lewis Carroll

Ecological Analog

“There is a limit to how morphologically similar two coexisting species can be, if both are to persist within the same habitat ... niche differentiation being the ways that coexisting and directly competing plants differ in the resources they use....

Logically, the theory of limiting similarity must operate: so long as species interfere with each other (e.g. compete), one species must have at least a slightly higher competitive ability and, unless they are in different niches, competitive exclusion must occur” *

http://en.wikipedia.org/wiki/Competing_species



Picture: Wikipedia

* From: “Evidence for Limiting Similarity in a Sand Dune Community,” by Wendy Stubbs and J. Bastow Wilson, *Journal of Ecology*, 92, 2004, 557-567

And Cooperation ...

ANIMAL BEHAVIOUR

Benefits of mixed flocks

Cooperation between species may be an overlooked factor in community organization.

Ecologists tend to assume that all of the species within a community are more different from one another than chance would predict, because competition precludes two species from sharing the same ecological niche. So mixed-species bird flocks are a puzzle: these groups, which contain birds of different species that all eat roughly the same food, seem to show species happily co-existing. According to an analysis of a global data set by Kartik Shanker at the Indian Institute of Science in Bangalore and his co-authors, the more similar two birds are by taxonomy, body size and foraging style, the more likely they are to be found together, especially where tropical mixed flocks are concerned.

The team suggests that this happens because cooperative benefits — such as those provided by alarm calls or the discovery of food resources — are best obtained from the most similar individuals.

Am. Nat. 180, 777–790 (2012)

Exercise #5

A single buyer wishes to buy at most one unit of each of two products, 1 and 2. Firm *A* is the sole seller of product 1. It makes product 1 at a cost of \$10, and the buyer is willing to pay \$20 for this product. Firm *A* also produces product 2. Its cost of making this product is \$3, and the buyer is willing to pay \$5 for it. In selling product 2, firm *A* faces the possibility of competition from a potential entrant, firm *B*. If *B* enters, it will be able to make product 2 at a cost of \$3, and the buyer will be willing to pay \$7 for this version of product 2. That is, firm *B* has the same cost position as firm *A*, but produces a superior version of the product. Products 1 and 2 are independent, in the sense that the buyer's willingness-to-pay for each product does not depend on what else the buyer purchases. Thus, the willingness-to-pay for product 1 from firm *A* and product 2 from firm *A* is $\$20 + \$5 = \$25$. Likewise, the willingness-to-pay for product 1 from firm *A* and product 2 from firm *B* is $\$20 + \$7 = \$27$.

The game proceeds in three stages. First, firm *A* decides whether or not to bundle its products. If *A* bundles, the buyer's options in dealing with *A* are either to buy both products or to buy neither product. Second, firm *B* decides whether to enter and compete to sell product 2. If it enters, it incurs a small, irrecoverable entry cost. Finally, the seller or sellers, and the buyer, engage in bargaining that determines which transactions are made and how value is divided among the players.

- a. If firm *A* does not bundle its products, will firm *B* enter or not?
- b. If firm *A* does bundle its products, will firm *B* enter or not?
- c. Is it profitable for firm *A* to bundle?
- d. Is bundling an efficient or inefficient strategy?

Exercise #6

Now, product 1 and product 2 are perfect complements --- neither product is of any use to the buyer without the other. The buyer wishes to buy at most one *system* of products, composed of one unit of product 1 and one unit of product 2. Specifically, the buyer has a willingness-to-pay of \$25 for a system made of firm *A*'s product 1 and firm *A*'s product 2. The buyer has a willingness-to-pay of \$27 for a system made of firm *A*'s product 1 and firm *B*'s product 2. The buyer has zero willingness-to-pay for either product alone.

- a. If firm *A* does not bundle its products, will firm *B* enter or not?
- b. If firm *A* does bundle its products, will firm *B* enter or not?
- c. Is it profitable for firm *A* to bundle?
- d. Is bundling an efficient or inefficient strategy?