

**Project #5 :: Have You Had Enough?**

Business Economics

Spring 2014

**Project #5 :: Have You Had Enough?**

**Project description:**

This project develops your understanding of the law of diminishing returns by bringing together seemingly two disparate concepts: economics and satisfaction with candy bars. Teams of students will research the law of diminishing returns and determine the point at which the law of diminishing returns affected their level of satisfaction with their candy-bar consumption. In other words, when did the candy bar stop satisfying them and actually start hurting their satisfaction with the candy? After writing a short report to explain the law of diminishing returns and its impact on candy bar satisfaction, each team will apply the law of diminishing returns to a business situation. Each team will explain how the law relates to a specific business situation in a short, creative presentation.

**Timeframe:** 1 week

**Driving question:**

When did the law of diminishing returns affect your level of satisfaction with candy bars?





**Objectives:**

* Explain the impact of the law of diminishing returns

**Calendar of Important Events**

|  |  |  |  |  |  |  |  |
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| **March 2014** | | | | | | |  |
| **Sun** | **Mon** | **Tue** | **Wed** | **Thu** | **Fri** | **Sat** | **Notes:** |
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| 2  **Week 9** | 3 | 4 | 5 | 6 | 7 | 8 |  |
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| 9  **Week 10** | 10 | 11 | 12 | 13 | 14 | 15 |  |
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| 16  **Week 11** | 17 | 18 | 19 | 20 | 21 | 22 |  |
| Mar 24: Begin **Project #5 :: Have You Had Enough?** |
| 23  **Week 12** | 24 | 25 | 26 | 27 | 28 | 29 | Mar 27: Written Report/Oral Presentation Due |
| Mar 28: **TEST** |
| 30  **Week 13** | 31 |  |  |  |  |  |  |
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**Team report:**

Each student will conduct Internet research to learn about the law of diminishing returns: what it is, why it’s important, and how it relates to business.

Following secondary research on the law of diminishing returns, each team should write a one-page report explaining the law of diminishing returns, how it can be applied to the candy-bar eating experience, and when and why the law of diminishing returns impacted the team members.

**Oral presentation:**

Now that the students understand the law of diminishing returns, each team must apply the law of diminishing returns to a business situation. Each team creatively presents the team’s business situation in three-to-five minute informal presentation to the class.

**Test:**

At the end of week 12, students take a test covering performance indicators from Quiz 4A, along with the following additional performance indicators:

* Analyze the impact of specialization/division of labor on productivity
* Explain the nature of business processes
* Describe the nature of taxes
* Explain the impact of the law of diminishing returns

**Sample Team Contract**

## Members

Carlie, Otis, Neff, Rennie, Joe, Vince

# Team Constitution

Forward: This contract is a binding legal document and governs the group until the assigned project deadline. If the group separates, or a member is fired, the basic contract laws remain intact for both parties. However, being fired may cause work responsibilities to shift.

Article I: Absence Policy

a. If a group member will be absent on a day in which work is due, they must tell another group member a day in advance and have all work that they are responsible for turned in. All group members must stick to the provided agenda to have the assignments completed on time. If there will be an unexpected absence, the group member is to complete the work from home and email another group member to let them know they are gone for the day.

b. Group members will contact one another if they are absent for any amount of period during the time allotted for working on the projects.

Article II: Work Policy

a. Any member that is mentally or physically disabled and can prove that they cannot complete the work assigned to them alone may acquire assistance from other group members to help complete it. This will only apply for work that is group work and not individual work, and work will only be finished by that group member, and the assisting group member will not write it.

b. Each group member will work to the best of their ability, making sure the completed work is up to standards, and that they complete it with punctuality.

c. If a group member commits plagiarism, they are solely responsible and incur the punishment on their own.

Article III: Leadership

a. At the beginning of the project, a leader will be voted upon democratically. If a group member is absent at the time of voting, they waive their right to participate in voting. The person who wins the most votes becomes the leader. If there is an unclear outcome (same number of votes for different people), the group will have no leader until one can be chosen by a revote.

1. By being elected leader, the person must perform the following duties:
2. Organize group meetings.
3. Create and enforce a group agenda to govern group progress.
4. Organize any out-of-school project efforts.
5. Provide communication between group members in order to help individuals work towards the project goal.

If they fail to perform these duties, or another person is also carrying them out, a revote may be taken to determine whether to obtain a new leader.

Article IV: Work Ethics

a. If a group member does not complete work they were assigned, the punishment for the infringement will be of detriment solely to the group member at fault. No negative grading shall be given to any other group members.

Article V: Member Dismissal

a. The following conducts will result in a group member being able to be dismissed:

1. Incomplete or missing group work
2. Plagiarism or any form of cheating
3. If group member decides to leave under his or her own will

b. Any group member leaving under their own will may submit all their own work, while the other group members may not. Any group member fired for breaking any of the conducts under Article V-a (i-iii) will have their work taken from their possession to be used at the discretion of the original group, but not for the individual being fired. In addition, any fired member may not use any work completed by other group members, subject to punishment under Article 2-c.

c. If a group member leaves under the stipulation of Article V-a (iv), they retain all the work they have already provided for the group. The original group cannot use this work or it is subject to punishment under Article 2-c.

Article VI: Signature

By signing this contract, the following group members abide to the articles above. If any member fails to abide by the articles of this contract, they may be fired from the group given at least a 50% vote in favor of firing the individual.

## Signatures:

Source: Novel Approach Consulting Group, www.novelapproachpbl.com

## Team Project Plan

This document serves two purposes in every project:

1. Project planning guide
2. Project status report

Instructions:

* Each team works together to determine
  + Project objective
  + Tasks to be completed for a successful fulfillment of the project objective
  + Resources needed to complete each task (if any)
  + Person(s) responsible for completing each task
  + Due date for each task
* The first four columns of the table below (task, responsible, resources, and due date) serve as the guiding document through the end of the project.
* At the end of each week, use one copy to fill in the last three columns of the table. This serves as a weekly status report for your teacher.

## Team Project Plan

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| **Members of my team:** |  |
| **Project Name:** |  |
| **Project Objective:** |  |

| **Task** | **Who Is Responsible** | **Resources Needed** | **Due Date** | **Status** | **Completed & Date turned in** |
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**Team Signatures:**

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**19—Objective:**

Explain the impact of the law of diminishing returns

1. Define the following terms:

Stages of production

Theory of production

Production function

Increasing returns

Diminishing returns

Law of diminishing returns

Law of variable proportions

Marginal product negative returns

Marginal cost

Total revenue

Marginal revenue

1. Explain the stages of production.
2. Describe the impact of the law of diminishing returns on production decisions.
3. Explain how total revenue and marginal revenue are used to determine the amount of output that will generate the most profit.