Subway Economics – Answer Key

Case Study:

Mark and Mindy have just entered graduate school and are working full time. They are having trouble finding time making lunches and dinners to go, never mind the time to grocery shop and wash the prep dishes. Mindy’s coworker told her about the $5 subs that Subway sells and claims that she could not buy the ingredients for less money than just buying the sub sandwich. Skeptically, Mindy tells Mark about her coworker’s statement and Mark tells Mindy to “run the numbers” to see if it would actually work, after all, they are keeping a close watch on their budget while their paying for school.

1. Based only on the case study list the steps you would take, in the order you would take them, to solve this problem.
	1. Gather Information:
		1. Find out how much Subway Sandwiches Cost (price them out)
		2. Compare apples to apples by determining what ingredients and the quantity of each are on your desired sandwich.
		3. Price out the groceries needed to make a comparable sandwich
	2. Calculate:
		1. Total cost of eating a sandwich at subway every day for Mark & Mindy
		2. Price per homemade sandwich
			1. Divide price of whole bag of an ingredient by serving size (amount you will use on one sandwich)
			2. Total ingredient prices to come up with cost of one sandwich
			3. Determine how many sandwiches you can make out of the ingredients you purchased.
			4. Total up the cost of the number of sandwiches Mark and Mindy will eat in one week. (5 working days)
	3. Evaluate
		1. Compare the price of Subway for one week vs. homemade sandwiches for one week
2. Price out the cost of both the homemade and Subway 6” sandwich. The fastest way is to go on [www.peapod.com](http://www.peapod.com) or [www.netgrocer.com](http://www.netgrocer.com) and look up the price of ingredients. Be sure to look at the serving size of each item or write your assumptions in the chart. Ex. One plum tomato will be enough for two 6” sandwiches.
3. Mark & Mindy both like the club sandwich so price out the cost of making vs. buying a Footlong club sandwich. Discuss which plan they should go with and why.
4. Look up the definition of economies of scale. How does this definition apply to Subway and Mark & Mindy?

Economies of scale allows one to purchase ingredients on such a large scale that the price per unit is cheaper than someone who buys a smaller quantity. Subway has the advantage of economies of scale in this situation since they are able to buy tons of ingredients at a very low price compared to the small quantities and hence higher price Mark & Mindy have to pay at the grocery store.

1. What are the assumptions made in this case?
	1. Sandwiches don’t get boring to eat day in and day out
	2. No coupons/promotions are used. The more promotions used the answers change question 4.
	3. Bags & napkins are free- Mark & Mindy did not account for the cost of plastic bags & napkins for their sandwiches
	4. Sales tax is 6%
2. Are there any other solutions to their problem that have not been explored? Suggestions to save them time, money, etc?
	1. Purchasing one foot long and splitting it
	2. Subway Online Ordering
	3. Purchasing other readymade foods from the grocery store

**Six Inch Pricing**

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| **Cold Cut Sub Ingredients** | **Grocery Store Quantity** | **Grocery Store Price** | **Price per**  |
| **(serving size)** |
| Ham (2 slices) | 9oz tub =approx 18 slices |  $ 2.79  |  $ 0.31  |
| Salami (2 slices) | 8oz = 44 slices |  $ 4.49  |  $ 0.20  |
| Bologna (1 slice) | 16 slices |  $ 2.79  |  $ 0.17  |
| Swiss Cheese (1 slice) | 10 slices |  $ 2.99  |  $ 0.30  |
| Tomatoes (3 slices) | 5 total-half a plum tomato per sandwich |  $ 2.95  |  $ 0.30  |
| Lettuce (6” piece) | 1 head iceberg- 10th of a head per sandwich |  $ 1.79  |  $ 0.18  |
| Banana Peppers (5 ct) | 1 jar = approx 56 slices |  $ 2.99  |  $ 0.27  |
| Whole Wheat bread (6” ) | 2 - 6 count pkgs |  $ 6.58  |  $ 0.55  |
| Ranch Dressing (1 Tbsp) | 16oz bottle = 32 Tbsp |  $ 2.00  |  $ 0.06  |
|  |  |  **Total**  |  $ 2.34  |
|  |  |  |  |
| **Tuna Sub Ingredients** | **Grocery Store Quantity** | **Price per**  | **Grocery Store Price** |
| **(serving size)** |
| Tuna (5 oz) | 2 - 12oz cans; approx 5oz per sandwich |  $ 8.58  |  $ 1.72  |
| Mayo (1 Tbsp) | 18oz =36 Tbs |  $ 2.79  |  $ 0.08  |
|   | **Total** |  **$ 40.74**  |  |
| Swiss Cheese (1 Slice) | 10 slices |  $ 2.99  |  $ 0.30  |
| Tomatoes (3 slices) | 5 total-half a plum tomato per sandwich |  $ 2.95  |  $ 0.30  |
| Lettuce (6” piece) | 1 head iceberg- 10th of a head per sandwich |  $ 1.79  |  $ 0.18  |
| Banana Peppers (5 ct) | 1 jar = approx 56 slices |  $ 2.99  |  $ 0.27  |
| Whole Wheat bread (6”) | 2 - 6 count pkgs |  $ 6.58  |  $ 0.55  |
| Ranch Dressing (1 Tbsp) | 16oz bottle = 32 Tbsp |  $ 2.00  |  $ 0.06  |
|  |  | **Total**  |  **$ 3.44**  |
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| **Analysis**  |
| **Tuna Sub Price** | **$3.50**  | **Cold Cut Sub Price** | **$3.50**  |
| **Sales Tax** | **$0.21**  | **Sales Tax** | **$0.21**  |
| **Total** | **$3.71**  | **Total** | **$3.71**  |
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| **Total Cost of Homemade Sandwiches per Week** |  **$ 28.92**  | **Total Cost of Groceries** |  **$ 40.74**  |
| **Total Cost of Subway Sandwiches per Week** |  **$ 37.10**  |  |  |

**Footlong Pricing**

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| **Footlong Club Sub Ingredients** | **Grocery Store Quantity** | **Grocery Store Price** | **Price per**  |
| **(serving size)** |
| Turkey (4 slices) | 2 -9oz tubs =approx. 18 slices |  $ 5.58  |  $ 0.62  |
| Roast Beef (4 slices) | 2- 9oz tubs= 14 slices |  $ 6.00  |  $ 0.86  |
| Ham (2 slice) | 2 -9oz tubs =approx. 18 slices |  $ 5.58  |  $ 0.31  |
| Swiss Cheese (4 slice) | 2 Pks of 10 slices |  $ 5.98  |  $ 1.20  |
| Tomatoes (6 slices) | 5 total-one per sandwich |  $ 2.95  |  $ 0.59  |
| Lettuce (2 -6” pieces) | 1 head iceberg- 5th of a head per sandwich |  $ 1.79  |  $ 0.36  |
| Banana Peppers (10 ct) | 1 jar = approx 56 slices |  $ 2.99  |  $ 0.53  |
| Whole Wheat bread (12” ) | 2 - 6 count 6" pkgs |  $ 6.58  |  $ 1.10  |
| Ranch Dressing (2 Tbsp) | 16oz bottle = 32 Tbsp |  $ 2.00  |  $ 0.13  |
|  |  |  **Total**  |  $ 5.69  |
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| **Analysis**  |
| **$5 Footlong Sub Price** | **$5.00**  |
| **Sales Tax** | **$0.30**  |
| **Total** | **$5.30**  |
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| **Total Cost of Homemade Sandwiches per Week** |  **$ 28.43**  | **Total Cost of Groceries** |  **$ 39.45**  |
| **Total Cost of Subway Sandwiches per Week** |  **$ 25.00**  |   |  |
| **Annual Savings by eating at Subway (50 wks/yr)** |  **$ 171.68**  |  |  |
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| **Assumptions** |
| Eat Subway 5 days a week for 50 weeks a year |
| Only purchase $5 footlong each time |
| Mark & Mindy split the $5 footlong |
| Mark & Mindy do not purchase anything else from Subway but the sandwiches |
|  |
| **Discussion** |
| With the $171.68 that Mark & Mindy save by buying Subway sandwiches they could buy a $3.43 bag of chips to share for the week |
| Eventhough they would have a net savings of zero, they would save the time preparing sandwiches |