

Name _____

Date _____

Pick Two

Food & Nutrition

Directions: Choose two projects to complete. The projects must be from different categories. You can not pick both Menu projects for example. One has to be from Create a Meal and a different one from Food Label category just as an example.

All projects are due by **Monday 2/14/11.**

Menus	Create-A-Meal	Food Labels
<p>Create a menu with a minimum of 3 appetizers, 6 entrees, 5 side items, 4 desserts, 5 beverages. Use menu to order a complete meal, calculating the total, including tax and tip.</p>	<p>Create nutritional cards from each food group and calculate calories, total fat and protein.</p>	<p>Compare and contrast 2 nutritional facts food labels and write a summary explaining your findings.</p>
<p>Restaurant Finances - calculate average cost and profit using worksheet provided.</p>	<p>Create a Meal Plan for you for a day using guidelines provided for maximum calories, total fat and protein.</p>	<p>Construct a minimum of 5 questions using Nutritional Facts Food labels producing unit rate, and percent of a number.</p>

I. Create a menu

You now get to create a menu for your restaurant! The menu should include the following items:

A restaurant name

A menu with prices for every item

The menu should contain at least:

- 3 appetizers
- 6 entrees (main dishes)
- 5 side items
- 4 desserts
- 5 beverages (no alcohol)

Please have each item listed individually – no combo meals.

Items on the menu must be edible. Prices should be somewhat realistic.
Review standard meal prices on your summary form.

Ideas for a Theme/Concept

- A certain style of food
- An individual dish
- Ethnic influence
- Décor and ambiance
- A character from a book, movie, or TV show
- Sporting events, hobbies, or games
- Geography

Choosing a Name

- Name of someone significant to you
- Geography
- Historic or traditional names and spaces
- Ethnic and cultural names
- Pop culture
- Weather
- Humor and irony

Menus nominations for awards will be given for the following categories:

- Best Theme
- Best Original Logo
- Most Creative Original Restaurant Name
- Most Creative Food Item Name/Description
- Best Original Slogan
- Best Overall Presentation
- Best “Extra” Item
- Best Overall Menu (based on fun, creativity, and originality)

I. Create a menu

Restaurant Name	
Owner	
Server	
Guest	
Chef	

Items Ordered		Price
Appetizer		
Entrée		
Side Item		
Beverage		
Dessert		
Other		
***** TOTAL *****		(A)

		<i>Guest Calculations</i>		<i>Server Calculations</i>	
Tax	8% = _____ (convert to decimal)	Calculate 8% of (A)		(B)	
Subtotal before tip		Add (A) + (B)		(C)	
Tip 10% poor, 15% good, or 20% excellent service	_____ % = _____ (convert to decimal)	Choose a tip Calculate x% of (A)	(D)		
Total bill		Add (C) + (D)	(E)		
Amount of CASH given to server (you only have \$50 bills)		A multiple of \$50 large enough to pay for the bill	(F)		
Change provided to customer		Subtract (F) – (E)		(G)	
Restaurant Profit for Owner	6% = _____ (convert to decimal)	Calculate 6% of (A)		(H)	
Amount of tip for Server	50% = _____ (convert to decimal)	Calculate 50% of (D)		(I)	
Amount of tip for Chef	25% = _____ (convert to decimal)	Calculate 25% of (D)		(J)	

II. Restaurant Finances – Use a previous students menu or menu from a existing restaurant for this activity

Restaurant Name				
Type of Restaurant (circle one) Examples: Fast Food – McDonalds, Jason’s Deli, Long John Silvers Casual Dining – Chili’s, Olive Garden, Joe’s Crab Shack Fine Dining – An expensive steakhouse or seafood place	Fast Food		Casual Dining	Fine Dining
Theme/Style				
Number of Seats (circle one)	Fast Food	50	75	100
	Casual	150	175	200
	Fine	75	100	125
Total meal price per person (for planning purposes)	Fast Food	Lunch = \$4-8, Dinner = \$5-9		
	Casual	Lunch = \$7-12, Dinner = \$12-18		
	Fine	Lunch = \$15-25, Dinner = \$20-50		
	Menu Item		Price	
My Best-Selling Appetizer				
Top 4 Selling Entrees				
Top 3 Selling Side Dishes				
Top 3 Selling Drinks				
Top 2 Selling Desserts				

II. Restaurant Finances

The next step to determine the overall income for your restaurant is to find out the average amount of money you would make in one day. *You may use a calculator to find the following numbers.*

A	Average price of my 4 best-selling entrees	
B	Average price of my 3 best-selling side dishes	
C	Average price of my 3 best-selling drinks	
D	Average price of my 2 best-selling desserts	
E	Price of my best-selling appetizer	

Average Lunch Check per Person = $A + B + C + 0.2D$

Average Dinner Check per Person = $0.25E + A + 2B + C + 0.5D$

F	Average Lunch Check per Person	
G	Average Dinner Check per Person	

Next, you need to find out how many people you will serve each day. Restaurants call this the number of covers. This is based on table turnover or how many people eat per each seat in your restaurant. Find your turnover in the chart below.

		TURNOVER
LUNCH	Fast Food	4
	Casual	1.5
	Fine	0.5
DINNER	Fast Food	6
	Casual	2
	Fine	1.25

So how much money does your restaurant bring in during lunch and during dinner?

Lunch = Average Lunch Check per Person • Turnover • Number of Seats

Dinner = Average Dinner Check per Person • Turnover • Number of Seats

Meal	Average Check	Turnover	Seats	Total Revenue
Lunch				
Dinner				
Total per Day				
Total per Week (Total per Day • 7)				
Total per Month (Total per Day • 30)				
Total per Year (Total per Month • 12)				

II. Restaurant Finances - Sample Expense Report/Income Statement

Expense Report/Income Statement

		Percentage	Monthly Example ***
Total Revenue	A		\$270,000
Food Sales	B	90%	\$243,000
Beverage Sales	C	10%	\$27,000
Food Cost			
Food Cost	D	35%	\$85,050
Beverage Cost	E	28%	\$7,560
COGS (Cost of Goods Sold)	F	34.3%	\$92,610
Gross Profit			
Gross Profit	G	65.7%	\$177,390
Payroll			
Payroll	H	30%	\$81,000
Benefits	I	4.4%	\$11,880
Total Payroll	J	34.4%	\$92,880
Direct Operating Expenses*			
Direct Operating Expenses*	K	5%	\$13,500
Marketing/ Entertaining/Advertising	L	1.5%	\$4,050
Energy/Utilities	M	3.5%	\$9,450
General/Administrative	N	4%	\$10,800
Repairs/Maintenance	O	2%	\$5,400
Total Operating Expenses	P	16%	\$43,200
Gross Operating Profit			
Gross Operating Profit	Q	15.3%	\$41,310
Other Expenses			
Rent/Lease expenses	R	4.3%	\$11,610
Real estate taxes	S	2%	\$5,400
Insurance	T	1.2%	\$3,240
Total Other Expenses	U	7.5%	\$20,250
Adjusted Profit			
Adjusted Profit	V	7.8%	\$21,060
Net Income** (Profit/Loss)			
Interest	W	1%	\$2,700
Depreciation	X	2%	\$5,400
Net Income** (Profit/Loss)	Y	4.8%	\$12,960

* Telephone, accounting, legal, office supplies, paper, china, glass, menus, landscaping, cleaning supplies, etc.

** Net income before income taxes

*** Average monthly sales per Chili's restaurant

II. Restaurant Finances - Expense Report/Income Statement Directions

Item	How To Complete
A	On your Menu Finances page you already determined the monthly income for your restaurant. Copy this number in Box A.
B	We will use the industry average of about 90% of sales coming from food items. B = 90% of A
C	The remaining 10% of sales are for beverages. C = 10% of A
D	Restaurants use the food cost percentage to help determine the price of menu items. Typically, the price of the food may be about 3 times the ingredients it takes to prepare the food. That would be a food cost percentage of 33%. Most places target between 20-40% for this number. $\text{Food Cost Percentage} = \frac{\text{Cost of Raw Ingredients}}{\text{Selling Price}} \cdot 100$ We are going to use 32%. So: D = 32% of B
E	Same as D, except beverages usually have a lower percentage because the cost is so low that restaurants can make a higher percentage profit on drinks. E = 24% of C
F	Cost of goods sold or COGS. For the dollar amount: F = D + E For the percent, you can not just add. For the % use the total cost divided by the total revenue: $\frac{F}{A}$
G	Your gross profit is how much you made on the food and drink before you take out all your other expenses. G = A - F
H, I, J	Now you have to pay all of your managers, waiters, cooks, etc. They get paid a certain amount plus you have to pay for their benefits, like health insurance. H = 30% of A I = 5% of A J = 35% of A
K to P	Next, you add all the other expenses in owning a restaurant - the cost of plates and utensils, menus, furniture, and kitchen supplies, advertising your business, phone and electricity, paperwork, repairs, maintenance of your building and grounds...the list goes on and on. K through P are all a certain % of A
Q	Now you have your gross operating profit. Q = G - J - P
R, S, T, U	Next you have to pay for your occupancy (rent, equipment rental, real estate taxes, insurance, property taxes, etc.) R through U are all a certain % of A
V	Your adjusted profit is: V = Q - U
W, X	Deprecation is an accounting process of spreading out your capitol costs over time. Interest is what you have to pay on all loans you have taken out to run the restaurant. W and X are a % of A
Y	The bottom line! Hopefully you are making money! Most profitable restaurants will have a bottom line of 3-8%. This means for every \$100 they sell, they make between \$3 and \$8. Y = V - W - X

II. Restaurant Finances - Your Expense Report/Income Statement

Expense Report/Income Statement for _____

		Percentage	Monthly
Total Revenue	A		
Food Sales	B	90%	
Beverage Sales	C	10%	
COGS (Cost of Goods Sold)			
Food Cost	D	32%	
Beverage Cost	E	24%	
COGS (Cost of Goods Sold)	F		
Gross Profit			
Payroll	H	30%	
Benefits	I	5%	
Total Payroll	J	35%	
Operating Expenses			
Direct Operating Expenses	K	5%	
Marketing/ Entertaining/Advertising	L	1.5%	
Energy/Utilities	M	3.5%	
General/Administrative	N	4%	
Repairs/Maintenance	O	2%	
Total Operating Expenses	P	16%	
Gross Operating Profit			
Other Expenses			
Rent/Lease expenses	R	4%	
Real estate taxes	S	2%	
Insurance	T	1.2%	
Total Other Expenses	U	7.2%	
Adjusted Profit			
Interest	W	1%	
Depreciation	X	2%	
Net Income (Profit/Loss)	Y		

III. Create nutritional cards from each food group. Create a meal by creating a nutritional card from each of the food groups on the food pyramid. You must create a card that is in the milk, grains, meat/beans, vegetables, and fruit categories. The oil category is optional. You must also create a nutritional card for a desert. You will then use those cards to fill in the chart on the next page. You will then calculate your total calories, total fat, and total protein for your particular meal on the provided sheet. Optional website you may use to create nutritional fact cards - <http://nutritiondata.self.com>

A Pyramid of Food

Choose a card from each food group listed on the chart. You should select foods for a particular meal, including a snack.

Fill in the chart below:

Category	Item	Serving Size	# of servings	Total Calories	Total Fat	Protein
Milk (blue)	Skim Milk	8 fl. oz.	1.5	124.5	.3 g	12.39 g
Grains (orange)	Whole Wheat Bread	1 slice	2	124	2.1 g	4.86 g
Meat/Beans (purple)	Peanut Butter	1 tbsp.	2	188	16.12 g	8.02
Vegetables (green)	Carrots (Whole Raw Baby)	1 cup	1	50	.29 g	1.14 g
Fruits (red)	Peach	4 oz	1	61	.39 g	1.43 g
Oils (yellow)*						
Snack (pink)	Candy Bar (Small)	3 1/4" x 1 1/8" x 1/2"	1	225	15 g	5 g

* Not Required

Answer the following:

		Convert Totals to a.....	
		Percent	Fraction in simplest form
Total Calories	772.5	77250%	$772\frac{1}{2}$
Total Fat	34.2	3420%	$34\frac{1}{5}$
Total Protein	32.84	3284%	$32\frac{21}{25}$

Remember this is one meal of your day. Recommended daily intake of calories should be around 2,000. Total fat per day should be less than 65 grams. Total protein per day should be 50-75 grams.

A Pyramid of Food

Choose a card from each food group listed on the chart. You should select foods for a particular meal, including a snack.

Fill in the chart below:

Category	Item	Serving Size	# of servings	Total Calories	Total Fat	Protein
Milk (blue)						
Grains (orange)						
Meat/Beans (purple)						
Vegetables (green)						
Fruits (red)						
Oils (yellow)*						
Snack (pink)						

* Not Required

Answer the following:

		Convert Totals to a.....	
		Percent	Fraction in simplest form
Total Calories			
Total Fat			
Total Protein			

Remember this is one meal of your day. Recommended daily intake of calories should be around 2,000. Total fat per day should be less than 65 grams. Total protein per day should be 50-75 grams.

III. Create nutritional cards from each food group. Below is an example of what is needed for each of your Nutritional Cards.

Green Giant Canned Carrots

<h1>Nutrition Facts</h1>	
Serving Size 1 cup (85g) (3 oz.)	
Servings per container 2.5	
Amount per serving	
Calories 45	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 55 mg	2%
Total Carbohydrate 10g	3%
Dietary Fiber 3g	12%
Sugars 5g	
Protein 1g	
Vitamin A 360% • Vitamin C 8% • Calcium 2% • Iron 0%	
<small>*Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.</small>	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat. Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	Less than 300mg 375mg
Dietary Fiber	Less than 25g 30g
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	

Ingredients: Carrots.

IV. Create a meal for a family of four. Using nutritional labels that you cut out from packages at your house create a meal plan for yourself for a day. You are to create a meal plan based on a 2000 calorie diet. Your meal plan must be divided up into breakfast, lunch, dinner and snacks throughout the day of what you ate. Try and get a food item from each category on the food pyramid for each meal. The oil category is optional. What is most important is that your daily intake does not go over these values listed below.

Optional website you may use to find nutritional fact cards - <http://nutritiondata.self.com>

Calories – 2000 calories

Sodium – no more than 2,400mg

Protein – between 50g and 75g

Total Fat – no more than 65g

Total Carbohydrate – 300g

Saturated Fat – no more than 20g

Dietary Fiber – around 25g

Example: Lunch

Category	Item	Serving Size	# of servings	Total Calories	Total Fat	Total Saturated Fat	Total Sodium	Total Carbs	Total Fiber	Total Protein
Milk (blue)	Skim Milk	8 fl. oz.	1.5	124.5	.3 g	0 g	189 mg	19 g	0 g	12.39 g
Grains (orange)	Whole Wheat Bread	1 slice	2	124	2.1 g	.5 g	260 mg	24 g	2 g	4.86 g
Meat/Beans (purple)	Peanut Butter	1 tbsp.	2	188	16.12 g	3 g	147 mg	6 g	2 g	8.02
Vegetables (green)	Carrots (Whole Raw Baby)	1 cup	1	50	.29 g	0 g	78 mg	8 g	3 g	1.14 g
Fruits (red)	Peach	4 oz	1	61	.39 g	0 g	0 mg	17 g	3 g	1.43 g
Oils (yellow)*										
Snack (pink)	Candy Bar (Small)	3 1/4" x 1 1/8" x 1/2"	1	225	15 g	8 g	133 mg	36 g	2 g	5 g

* Not Required

Fill in the charts on next page.

Breakfast

Category	Item	Serving Size	# of servings	Total Calories	Total Fat	Total Saturated Fat	Total Sodium	Total Carbs	Total Fiber	Total Protein
Milk (blue)										
Grains (orange)										
Meat/Beans (purple)										
Vegetables (green)										
Fruits (red)										
Oils (yellow)*										
Snack (pink)										

* Not Required

Lunch

Category	Item	Serving Size	# of servings	Total Calories	Total Fat	Total Saturated Fat	Total Sodium	Total Carbs	Total Fiber	Total Protein
Milk (blue)										
Grains (orange)										
Meat/Beans (purple)										
Vegetables (green)										
Fruits (red)										
Oils (yellow)*										
Snack (pink)										

* Not Required

Dinner

Category	Item	Serving Size	# of servings	Total Calories	Total Fat	Total Saturated Fat	Total Sodium	Total Carbs	Total Fiber	Total Protein
Milk (blue)										
Grains (orange)										
Meat/Beans (purple)										
Vegetables (green)										
Fruits (red)										
Oils (yellow)*										
Snack (pink)										

* Not Required

	Total Calories	Total Fat	Total Saturated Fat	Total Sodium	Total Carbs	Total Fiber	Total Protein
Goals	2000	no more than 65g	no more than 20g	no more than 2,400mg	300g	around 25g	between 50g and 75g
Your Totals							

Answer the following:

		Convert Totals to a.....	
		Percent	Fraction in simplest form
Total Calories			
Total Fat			
Total Saturated Fat			
Total Sodium			
Total Carbs			
Total Fiber			
Total Protein			

V. Compare and contrast 2 nutritional facts food labels. Fill in table below. Write a summary of your findings.

Optional website you may use to find nutritional fact cards - <http://nutritiondata.self.com>

Questions to answer about each food label:

1. How large is the serving size listed on the label?
2. How many calories are there in a one serving?
3. Are the calories from fat less than 30% of total calories? They need to be, otherwise eat sparingly.
4. What is the major component (listed first in ingredients) of this cereal?
5. What type of fat is in the majority of this item?
6. How many servings of this food would a person need to consume to obtain 100% of the Daily Value of fiber, fat, sodium, and potassium?
7. Should a person with but allergies eat this product?
8. What health claims could the manufacturer of this product make on their package?

Possible Health Claims

Calorie Free	Less than 5 calories
Low Calorie	40 calories or less
Light or Lite	1/3 fewer calories or 50% less fat from original product
Fat Free	Less than .5 grams of fat
0 Trans Fat	Less than .5 grams of trans fats
Low Fat	3 grams or less fat
Cholesterol Free	Less than 2 milligrams of cholesterol and 2 grams or less saturated fat
Sodium Free	Less than 5 milligrams of sodium
Very Low Sodium	35 milligrams or less of sodium
Low Sodium	140 milligrams or less of sodium
High Fiber	5 grams or more of fiber

V. Compare and contrast 2 nutritional facts food labels. Fill in table below. Write a summary of your findings.

Table:

	Amount (mg or g)	15% of	62% of
Sodium	1.		
Total Fat	2.		

	Percent	Fraction	Decimal
Vitamin A			
Vitamin C			
Iron			
Calcium			
Zinc			

Write a summary of you results. Your summary should summarize your results and could make a claim as to which one is better to have in your diet.

VI. Construct a minimum of 5 questions similar to the questions on the back of the Nutritional Facts Food Labels. Compare and Contrast those 5 Questions over 2 Nutritional Labels from my collection or two you discover. Also fill in the charts below over your two nutritional labels.

Optional website you may use to find nutritional fact cards - <http://nutritiondata.self.com>

	Amount (mg)	15% of	62% of
Sodium	1.		
Potassium	2.		

	Amount (g)	15% of	62% of
Total Carbohydrate	3.		
Total Fat	4.		

Write in the percentages of each mineral on your nutritional label. Convert the Daily Percentage Values into fractions and decimals.

	Percent	Fraction	Decimal
Vitamin A			
Vitamin C			
Iron			
Thiamin			
Vitamin B12			
Calcium			
Phosphorus			
Magnesium			
Zinc			