#### Unit 6 Projects – Calorie Cruncher!

You are to complete the following tasks:

- 1. Fast Food Calorie Count: Using the menus on the handout "Fast Food Nation", you need to help 3 of the 5 people write inequalities to determine if their lunch is within their caloric limit, but they can only eat a steady diet of fast food
- 2. Fitness Guru: Using the data on the handout "The Burn Chart", you need to help 2 of the 5 people write inequalities to determine if they will burn enough calories to reach their fitness goals
- 3. Weight Watchers: Using the Data on the handout "The Burn Chart" and "The Food Chart", help 1 of the 5 people write inequalities to determine if they will burn enough calories to reach their fitness goals.
- 4. Personal Trainer: Using the data on the handout "the Burn Chart", "The Food Chart" and "Fast Food Nation", you will tailor diet plans and fitness routines for 1 of the 5 celebrities.

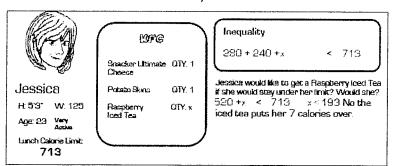
The answers are to vary based on what you think is suitable for the person, so your answers should be unique — meaning you are not to share answers with your peers.

The marking for the project is as follows:

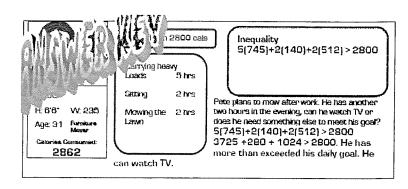
- 1. Fast Food Calorie Count is worth 3 marks per person one for the equation, one for solving it (Show your work!) and one for the answer (9 marks total)
- 2. Fitness Guru is worth 4 marks per person one for the equation; two for solving it (Show your work!) and one for the answer (8 marks total)
- 3. Weight Watchers is worth 4 marks per person one for the equation; two for solving it (Show your work!) and one for the answer (4 marks total)
- 4. Personal Trainer is worth 8 marks per person one for the equation; two for solving it (Show your work!) and one for the answer, and 4 marks for the personal training plan (Make sure it matches your answers! (8 marks total)

Here's an example of the work you have to do (That means you can't use these people in your work!)

You will have two dows to complete your project.



The Project is due
on:\_\_\_\_\_
The deadline for the project is
on:\_\_\_\_\_



## FRIT FOOD NATION

Here are a few of the most popular menu items in some of the world's most frequented fast food chains. Calorie counts and other nutrition facts can be found at the company's website.

KFG	
ltem	Calorie Count
Famous Bowl - Mashed Potato with Gravy	720
Popcorn Chicken - Large	560
Hot Wings (6)	450
Original Recipe Chicken – Breast & Thigh	720
Snacker, Ultimate Cheese	280
Potato Wedges	240
Cole Slaw	190
Apple Pie Slice	290

WEDONALD'S		
ltem	Calorie Count	
Chicken McNugget (5)	210	
Chicken Selects Strips	630	
Big Mac	560	
Double Cheeseburger	460	
Double Quarter Pounder with Cheese	730	
Crispy Chicken Club	680	
French Fry - Large	570	
Chocolate Triple Thick Shake (32 fl oz)	1160	

TAGO EGIL		
ltem	Calorie Count	
Fiesta Taco Salad	860	
Nachos Bell Grande	790	
Grilled Stuft Burrito - Beef	720	
Chicken Quesadilla	540	
7-Layer Burrito	530	
Double Decker Taco Supreme	380	
Cheesy Fiesta Potatoes	290	
Nachos	320	

PIZZA HOT		
ltem	Calorie Count	
Meat Lover's Personal Pan Pizza	830	
Pepperoni Lover's Personal Pan Pizza	720	
Supreme Personal Pan Pizza	720	
P'Zone - Classic	940	
P'Zone - Meaty	1100	
Pasta Bakes Marinara	840	
Cheese Garlic Bread (2)	480	
Cinnamon Sticks (4)	400	
Cinnamon Sticks (4)	400	

SOSWAY		
ltem	Calorie Count	
6" Italian B.L.T.	410	
6" Pizza Sub	490	
6" Chicken Parmesan	510	
6" Oven Roasted Chicken with Spinach	320	
6" Veggie Delite	230	
Chicken Tortilla Soup	110	
Creamy Potato and Bacon Soup	250	
Chocolate Chip Cookie	220	

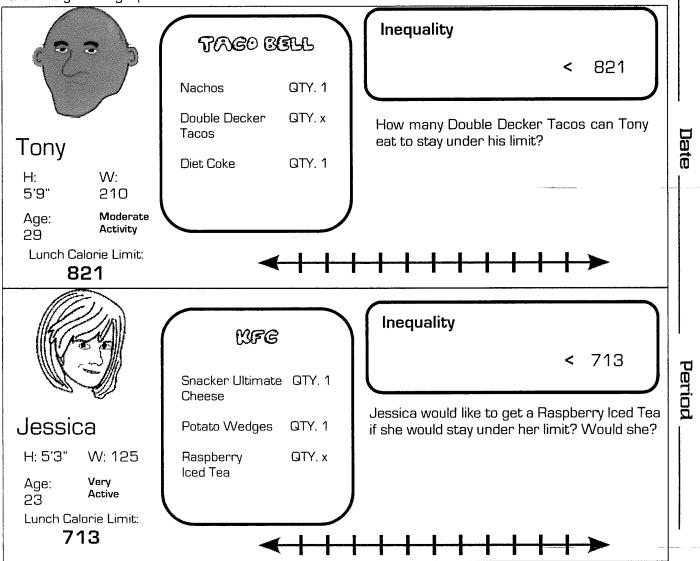
ORINK MENU					
Medium Drink (20 oz)	Pepsi	Mountain Dew	Tropicana Fruit Punch	Raspberry Iced Tea	Water & All Diet Soda
Calories	250	280	280	200	0

## FRIT FOOD GNLOBIE GOUNT

Stamped on the back of any label in your kitchen is a list of Nutrition Facts. On this label it shares the details of what is actually in the food being eaten. At the top of the list... *calories*. Calories are in practically everything we eat. Most

simply, calories are energy that fuels our bodies. Simply put, if you eat more calories than you use – you have extra (gain weight). If you eat less calories than you use – you burn calories stored in fat cells (lose weight). Of course, not eating enough calories is another issue altogether which will lead to other health problems. The point? Eat smart.

Typically fast food is the brunt of the public scrutiny. Many eat it for convenience, but it lacks the nutritional value of a good home cooked meal. **Using the menus on the handout "Fast Food Nation"** help five people write inequalities to determine if their lunch is within their daily calorie limit to maintain their weight and graph the solution.





#### Isabella

H: 5'9" W: 145

Little Age: 31 Activity

Lunch Calorie Limit:

628

#### WEDONAPD, E

Big Mac

QTY. 1

Large Fry

QTY. 1

Chocolate Triple

QTY. 1 Thick Shake

#### Inequality

628

Isabella forgot about her Calorie Limit. Did she stay under her limit? How much did she go over?



#### Tommy

H: 6'4" W: 215

Extremely Age: 35 Active

Lunch Calorie Limit:

1313

#### PIZZA HOT

Supreme Personal

QTY. 1 Pan Pizza

Cheese Garlic

Bread

Mountain Dew QTY. 1

#### Inequality

1313

On lunch break with the guys, Tommy is debating how many orders of Cheese Garlic Bread he can have without going over?



#### Eden

H: 5'6"

W: 135

Moderate Age: 17

Activity

Lunch Calorie Limit:

689

#### SOB CONTROL

QTY.2

QTY. x

6 in. Veggie Delite Sub

QTY. 1 Water

SOUP? QTY. 1

#### Inequality

689

Eden is trying to choose between the Chicken Tortilla or the Creamy Potato and Bacon Soup. She likes the Creamy Potato better, but would she go over? Which should she pick?

EXTENSION: The recommended calorie intake varies from person to person, but is typically between 1800 to 2400 calories a day. If this was spread across 3 equal meals, it's roughly between 600 to 800 calories per meal. Based on this activity and the Fast Food Chart, how well does fast food fits into this diet? Explain.

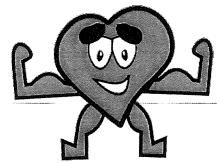
The Burn Chart

				ul I
Exercise & Calories Individual's Weig		ght		
Burned <u>per Hour</u>	130 lbs	155 lbs	180 lbs	205 lbs
Aerobics, general	384	457	531	605
Backpacking	413	493	572	651
Bagging grass, leaves	236	281	327	372
Bakery, light effort	148	176	204	233
Basketball game, competitive	472	563	654	745
Basketball, shooting baskets	266	317	368	419
Boxing, sparring	531	633	735	838
Canoeing, rowing, moderate	413	493	572	651
Carrying heavy loads	472	563	654	745
Carrying infant	207	246	286	326
Cycling, leisure	236	281	327	372
Cycling, mountain bike	502	598	695	791
Downhill snow skiing	354	422	490	558
Farming, baling hay, cleaning barn	472	563	654	745
Fishing, general	177	211	245	279
Football or baseball, playing catch	148	176	204	233
Football, competitive	531	633	735	838
Football, touch, flag	472	563	654	745
Frisbee, ultimate	472	563	654	745
Golf, general	266	317	368	419
Gymnastics	236	281	327	372
Hockey, ice hockey	472	563	654	745
Horseback riding	236	281	327	372
Housework, light	148	176	204	233
Housework, moderate	207	246	286	326
lce skating, average speed	413	493	572	651
Judo, karate, jujitsu, martial arts	590	704	817	931

<u>i saviicii (</u>	<u>L</u>	·····		
Exercise & Calories	Individual's Weight			ght
Burned <u>per Hour</u>	130 lbs	155 lbs	180 lbs	205 lbs
Kick boxing	590	704	817	931
Kickball	413	493	572	651
Mowing lawn	325	387	449	512
Music, playing drums	236	281	327	372
Music, playing guitar	177	211	245	279
Music, playing piano	148	176	204	233
Pushing stroller, walking with children	148	176	204	233
Rock climbing	472	563	654	745
Roller blading	708	844	981	1117
Running, light	472	563	654	745
Running, moderate	738	880	1022	1163
Running, vigorous	944	1126	1308	1489
Shoveling snow	354	422	490	558
Sitting, office work	89	106	123	140
Skateboarding	295	352	409	465
Soccer, playing	413	493	572	651
Standing, ex. clerk	136	162	188	214
Swimming competitive	590	704	817	931
Swimming leisurely	354	422	490	558
Tennis playing	413	493	572	651
Typing	89	106	123	140
Volleyball playing	177	211	245	279
Walking 2 mph, slow	148	176	204	233
Walking 4 mph, brisk	224	267	311	354
Weeding	266	317	368	419
Weight lifting, vigorous	354	422	490	558
Weight lifting, light	177	211	245	279

Data from: http://www.nutristrategy.com/activitylist4.htm

### Fitness Guru

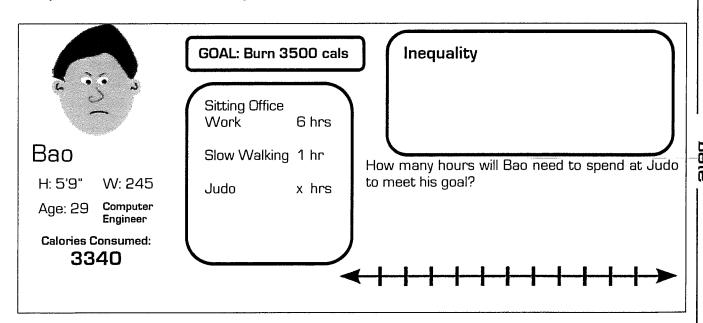


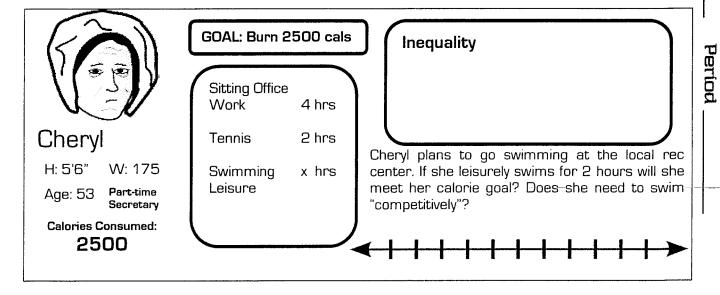
Although magic diet pills seem appealing for some, nothing can replace good of physical activity. A good fitness plan helps burn excess calories, improves long-term health and increases self-confidence. Activity might look

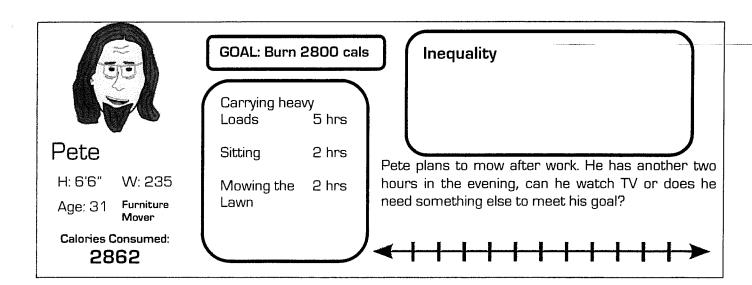
different from person to person, but the point is to find something you enjoy doing and DO IT. You burn calories by doing practically anything, but the big question is do you burn enough to reach your personal fitness goals? Do you want to gain 5 pounds? Lose 5 pounds? Stay the same?

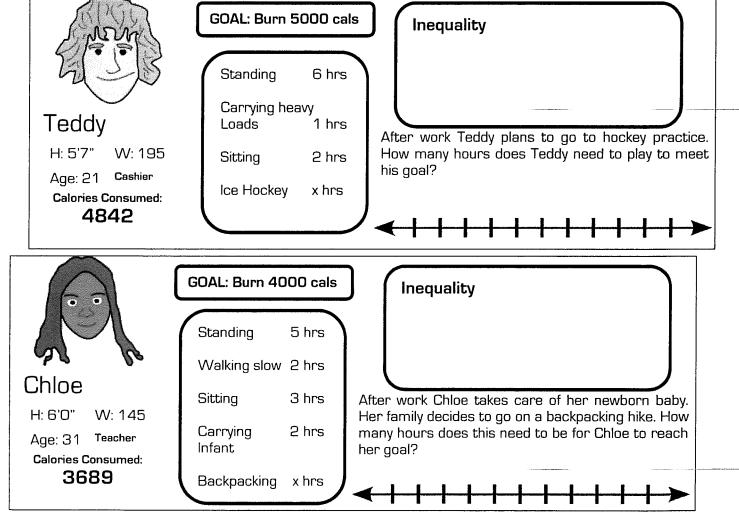
Using the data on the handout "The Burn Chart" help the five people write and graph inequalities to determine if they will burn enough calories to reach their goal.

If a person is in between two weights on the Burn Chart, use the data for the lower weight.









**EXTENSION:** Burning calories takes more work than you'd think. Eating a Big Mac is about the equivalent of running, playing touch football or baling hay for an hour. Based on this activity and the **Burn Chart**, estimate an ordinary school day for you. How many calories would you burn?

## THE FOOD CHART

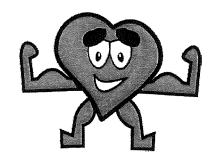
MILK & DAIRY	Calories in Portion	
Cheese average	110 cals	
Cottage cheese	49 cals	
Cream cheese	200 cals	
Eggs (1 average size)	90 cals	
lce cream	200 cals	
Milk whole	175 cals	
Milk semi-skimmed	125 cals	
Milk skimmed	95 cals	
Yogurt natural	90 cals	
Yogurt reduced fat	70 cals	
BREADS & CEREALS	Calories in Portion	
Bagel	140 cals	
Bread, white	96 cals	
Bread, whole	88 cals	
Noodles (boiled)	175 cals	
Pasta (normal boiled)	330 cals	
Pita	124 cals	
Potatoes (boiled)	210 cals	
Rice (white boiled)	320 cals	
Wheat Wrap	94 cals	
CONDIMENTS	Calories in Portion	
Chipotle Mayo	100 cals	
Ketchup	15 cals	
Light Mayonnaise	45 cals	
Mayonnaise	110 cals	
Mustard	5 cals	
Ranch	25 cals	
DRINKS	Calories in Portion	
Apple Juice	120 cals	
Gatorade	50 cals	
Hawaiian Punch	90 cals	
Monster	100 cals	
Orange Juice	140 cals	
Water	O cals	

Data from: caloriecount.about.com

MEATS & FISH	Calories in Portion	
Bacon average fried	303 cals	
Beef (roast)	252 cals	
Chicken	171 cals	
Ham	115 cals	
Lamb (roast)	300 cals	
Pork	260 cals	
Salmon fresh	190 cals	
Sausage pork fried	360 cals	
Trout fresh	120 cals	
Tuna	191 cals	
Turkey	180 cals	
	100100000000000000000000000000000000000	
FRUITS & VEGGIES	Calories in Portion	
Apple	44 cals	
Banana	107 cals	
Broccoli	27 cals	
Cucumber	3 cals	
Grapes	55 cals	
Green Pepper	3 cals	
Lettuce	4 cals	
Orange	62 cals	
Peas	210 cals	
Spinach	8 cals	
Strawberries	10 cals	
Tomato	4 cals	
OTHERS	Calories in Portion	
Fiber One Chewy Bar	140 cals	
Fruit Loops	120 cals	
Lay's Potato Chips	150 cals	
Oreos	160 cals	
Peanut Butter	188 cals	
Peanuts	160 cals	
Pepperoni Hot Pocket	530 cals	
Strawberry Pop Tart	410 cals	
Stouffer's Mac & Cheese	350 cals	
Trail Mix	593 cals	
I I ali IVIIX	720 Cals	



## Veight Vatchers



Diet and Exercise are words often paired together and for good reason. Depending on weight related goals, these are the variables that pull the strings. While infomercials will break down the value of different types of calories, most experts agree — <u>a calorie is a calorie</u>. A calorie from a piece of broccoli is effectively the same as one from a candy bar. The energy burns the same. Of course there are other nutritional benefits to the broccoli, but when it comes down to barebones weight and energy they are pretty much the same.

A good rule of thumb, <u>3,500 calories is equal to a pound</u>. Thus if you burn 3,500 more calories than you eat, you lose a pound. If you don't use 3,500 calories that you ate, you gain a pound.

Using the data on the handout "The Burn Chart" and "The Food Chart" help the five people plan their last workout or plan their last meal to help reach their goals.

[Weight Loss] Burn - Consumption ≥ Goal

(Weight Gain) Consumption - Burn ≥ Goal



H.D.

H: 5'8"

W: 265

Age: 29

Moderate Activity

Weekly Goal: Lose 3 lbs

Calorie Goal Calculator

\_\_\_\_ \* 3500 cals

lbs goal

total weekly cals

total weekly cals

\_\_\_\_ extra per day circle(Consume/Burn)

Totals with ONE workout to go	
Consumed 2570	
Burned	2300

H.D. has two hours to workout to meet his fitness goals for the day. Choose an activity(ies) that will help him reach his daily goal.



#### Trish

H: 5'3"

W: 125

Age: 23

Very Active

Weekly Goal: **Maintain Weight** 

Calorie Goal Calculator

\* 3500 cals

lbs goal

total weekly cals

\_\_\_\_/ 7 =

\_\_\_\_ extra per day circle(Consume/Burn)

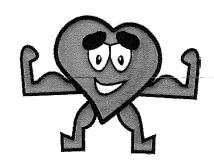
Totals with ONE meal to go	
Consumed	1750
Burned	2290

Home from working out, Trish is ready for her last meal of the day. She'd like some kind of meat, fruit, and couple of vegetables. Choose carefully and try to meet her goals.





# **Veight**



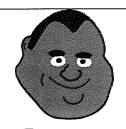
Diet and Exercise are words often paired together and for good reason. Depending on weight related goals, these are the variables that pull the strings. While infomercials will break down the value of different types of calories, most experts agree — a calorie is a calorie. A calorie from a piece of broccoli is effectively the same as one from a candy bar. The energy burns the same. Of course there are other nutritional benefits to the broccoli, but when it comes down to barebones weight and energy they are pretty much the same.

A good rule of thumb, 3,500 calories is equal to a pound. Thus if you burn 3,500 more calories than you eat, you lose a pound. If you don't use 3,500 calories that you ate, you gain a pound.

Using the data on the handout "The Burn Chart" and "The Food Chart" help the five people plan their last workout or plan their last meal to help reach their goals.

(Weight Loss) Burn - Consumption ≥ Goal

(Weight Gain) Consumption - Burn > Goal



H.D.

H: 5'8" W: 265

Moderate Age: 29

Activity

Weekly Goal: Lose 3 lbs Calorie Goal Calculator 3500 cals

lbs goal

total weekly cals circle(gain/lose)

total weekly cals

extra per day circle(Consume/Burn)

Totals with ONE	workout to go		
Consumed 2570			
Burned	2300		

H.D. has two hours to workout to meet his fitness goals for the day. Choose an activity(ies) that will help him reach his daily goal.



Trish

H: 5'3" W: 125

Very

Age: 23 Active

Weekly Goal: Maintain Weight Calorie Goal Calculator

3500 cals

lbs goal

total weekly cals circle(gain/lose)

total weekly cals

extra per day circle(Consume/Burn)

Totals with ONE meal to go... 1750 Consumed 2290 Burned

Home from working out, Trish is ready for her last meal of the day. She'd like some kind of meat, fruit, and couple of vegetables. Choose carefully and try to meet her goals.



#### Sydney

H: 5'2"

W: 108

Age: 31

Moderate Activity

Weekly Goal:

Gain 2 lbs

Calorie Goal Calculator

\_\_\_ \* 3500 cals

lbs goal

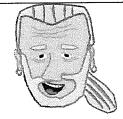
total weekly cals

total weekly cals

\_\_\_\_ extra per day circle(Consume/Burn)

Totals with ONE meal to go				
Consumed 1440				
Burned	1620			

Sydney is trying to add a little muscle and is eating one last meal for the day. Figure out a combination that will meet her goal.



#### Shabazz

H: 6'4"

W: 215

Age: 65

Extremely Active

Weekly Goal:

Lose 2 lbs

Calorie Goal Calculator

\_\_\_\_ \* 3500 cals

lbs goal

total weekly cals

total weekly cals

\_\_\_\_ extra per day circle[Consume/Burn] Totals with ONE workout and ONE meal to go...

Consumed 1910

Burned 2130

Home from work, Shabazz would like to have a sandwich. Afterward, he has three hours to spend working out. Find a combination that meets his goals.



#### Tripiti

H: 5'9"

W: 155

Age: 34

Moderate Activity

Weekly Goal: **Maintain Weight** 

Calorie Goal Calculator

\* 3500 cals

\_\_\_\_\_ 3500 Cai

total weekly cals

circle[gain/lose]

total weekly cals

\_\_\_\_ extra per day circle(Consume/Burn)

Totals with ONE workout and ONE meal to go...

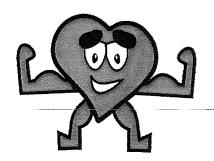
Consumed 1750
Burned 1480

Tripiti is ready to chow on a veggie-filled pita with cheese and ice cream for dessert. She has two hours to play some kind of sport. Find a combo that works for her.

**EXTENSION**: Based on this activity, was finding combinations that worked difficult to do? Is this something that you could use in your daily life? Why or why not?



## Personal Trainer



Crunching the numbers is the easy part, making it happen is the challenge. In this project, you will work as a Personal Trainer for the Stars. They of course have specific needs, wants and demands. It is your job to create for them three meals a day and a fitness plan in order to reach their goals. They will surely let you know if it isn't working!

Using the data on the handout "The Burn Chart", "The Food Chart", and "Fast Food Nation" design a day's worth of meals and a fitness plan tailored to the celebrities to hit their calories goals.



Angelina J.

H: 5'8" W: 135

Age: 37 Actress

Weekly Goal:

Gain 3 lbs

Calorie Goal Calculator
* 3500 cals
lbs goal
total weekly cals
circle[gain/lose]
15 / 1
/ 7 =
extra per day
circle(Consume/Burn)

**GOAL**: Angelina is taking on a role as Wonder Woman in the next summer blockbuster. She wants to gain 3 pound of muscle every week.

**RESTRICTIONS**: She desires to spend a lot of time with her family. Angelina only has 3 hours during her day that she is able to work out.

FITNESS				
Activity		cal		
	· · · · · · · · · · · · · · · · · · ·			
	WARMAN			
	TOTAL			

DIET						
BREAKFAST			LUNCH		DINNER	
item	cal	item		cal	item	cal
			1, , ,		TOTAL	

|[Diet Total] - (Fitness Total)|> (Calorie Goal) \_\_\_\_\_ - \_\_\_> \_\_\_\_\_>

In your plan, does Angelina meet her goal?

1	A response to the second secon
ĺ	7:
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	(3) (a) (b)
Ì	7 - 1
ı	
-	
	Michael

iviichaei P.

H: 6'4" W: 194

Olympic Age: 27 Swimmer

Weekly Goal:

Maintain Weight

Calorie Goal Calculator
* 3500 cals
lbs goal
=
total weekly cals
circle(gain/lose)
/ 7 = total weekly cals
extra per day
circle(Consume/Burn)

GOAL: Coming out of retirement, Michael is preparing for his next World Championship run. He needs to maintain his weight through his training.

RESTRICTION: Michael needs to swim competitively at least 5 hours a day and run vigorously at least 4 hours. He'd also like to spend at least an hour playing another sport.

FITNESS				
Activity		cal		
4.00 M				
	TOTAL			

			DIET		
BREAL	KFAST	Li	JNCH	DINNER	
item	cal	item	cal	item	cal
				TOTAL	117.1—100-704—2011 1

|[Diet Total] - (Fitness Total)| > (Calorie Goal)

In your plan, does Michael meet his goal? Show evidence.

Barack O. H: 6'1" W: 180 Age: 51 Politician Weekly Goal: Lose 4 lbs	lbs g	* 3500 cals  also also also also also also also also	r t l <b>F</b> s	race. ris the crimer ose a comment of the comment of the crimer of the c	The Manighs are for	White Hound he wand his national matrix and week of the second of the second with the allow the matrix and the second of the sec	paring for use food hants to appear on al debate of the control of	as gone rear slimmes. His wa by has to up in each	right to ner-and ants to o have o meal. urs for
		וח	ET						
BREAKFAST		T	NCH				DINNI	≣R	····
item	cal	item			cal	item			cal
						1			
	over the same of t						TOTAL		
(Diet Total) - (F	itness To	otal) > (Calorie Go	•				>		
n your plan, does Baracl									





Beyonce K.
H: 5'6" W: 130
Age: 30 Singer
Weekly Goal:
Gain 1 lbs

Calorie Goal Calculator
* 3500 cals
lbs goal
****
total weekly cals
circle[gain/lose]
, ,
/ <b>7 =</b>
total weekly cals
extra per day
circle(Consume/Burn)

**GOAL**: Beyonce has another baby on the way. Her doctor told her she needs to gain a pound a week to keep things healthy. Beyonce would like to stay active and physically fit throughout her pregnancy.

**RESTRICTIONS**: Obviously being pregnant will limit most high-impact activities. Since she's became pregnant she's also become lactose intolerant — so no dairy.

FITNESS					
Activity		cal			
<del></del>					
	TOTAL				

DIET								
BREAKFAST		LUNCH		DINNER				
item	cal	item	cal	item	cal			
				TOTAL				

[(Diet Total) - (Fitness Total)| > (Calorie Goal) \_\_\_\_\_ > \_\_\_\_ >

In your plan, does Beyonce meet her goal? Show evidence.



Johnny D.

H: 5'10" W: 158

Age: 49 Actor

Weekly Goal:

Lose 5 lbs

Calorie Goal Calculator
* 3500 cals
lbs goal
=
total weekly cals
circle(gain/lose)
total weekly cals
extra per day
circle(Consume/Burn)

GOAL: Johnny has taken a starring role in a Broadway play about the life of Robinson Crusoe. Johnny fully commits to his roles and it's important to him to make it as authentic as possible. Since Crusoe was an island castaway, Johnny's goal is to lose 25 pounds, but he wants to do it more safely – 5 pounds a week.

**RESTRICTION**: Johnny is experimenting with a vegan diet (no meat, no dairy, no animal byproducts). He has a knee problem so he doesn't plan on playing any sports, but wants to be an outdoorsman like Crusoe.

FITNESS				
Activity	cal			
TOTAL				

DIET								
BREAKFAST		LUNCH		DINNER				
item	cal	item	cal	item	cal			
				TOTAL				

|(Diet Total) - (Fitness Total)|> (Calorie Goal) \_\_\_\_\_ - \_\_\_> \_\_\_\_>

In your plan, does Johnny meet his goal? Show evidence.