## Unt 6 Proiects-Calonie 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 + wo days to complete your project.


The Project is due
on: $\qquad$

The deadline for the project is on: $\qquad$


## FOOT BOO entree

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.

| MFG |  |
| :---: | :---: |
| Item | Calorie <br> Count |
| Famous Bowl - Mashed <br> Potato with Gravy | 720 |
| Popcorn Chicken - Large | 560 |
| Hot Wings [6] | 450 |
| Original Recipe Chicken <br> - Breast \& Thigh | 720 |
| Snacker, Ultimate <br> Cheese | 280 |
| Potato Wedges | 240 |
| Cole Slaw | 190 |
| Apple Pie Slice | 290 |



| whOSO BE B |  |
| :---: | :---: |
| Item | Calorie <br> Count |
| Fiesta Taco Salad | 860 |
| Nachos Bell Grade | 790 |
| Grilled Stuft Burrito - <br> Beef | 720 |
| Chicken Quesadilla | 540 |
| 7-Layer Burrito | 530 |
| Double Decker Taco <br> Supreme | 380 |
| Cheesy Fiesta Potatoes | 290 |
| Nachos | 320 |





| Medium <br> Drink [20 oz] | Pepsi | Mountain Dew | Tropicana Fruit <br> Punch | Raspberry Iced <br> Tea | Water \& All <br> Diet Soda |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Calories | 250 | 280 | 280 | 200 | 0 |

## FROT FOOT SOLORIES 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.


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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 Ehart

| Exercise \& Calories Burned per Hour | Individual's Weight |  |  |  | Exercise \& Calories Burned per Hour | Individual's Weight |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|l\|} \hline 130 \\ \text { lbs } \end{array}$ | $\begin{aligned} & 155 \\ & \text { lbs } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 180 \\ & \text { lbs } \\ & \hline \end{aligned}$ | $\begin{array}{\|c} \hline 205 \\ \text { lbs } \\ \hline \end{array}$ |  | $\begin{aligned} & 130 \\ & \text { lbs } \\ & \hline \end{aligned}$ | $\begin{aligned} & 155 \\ & \text { lbs } \end{aligned}$ | $\begin{array}{\|l} \hline 180 \\ \text { lbs } \end{array}$ | $\begin{aligned} & 205 \\ & \text { lbs } \end{aligned}$ |
| Aerobics, general | 384 | 457 | 531 | 605 | Kick boxing | 590 | 704 | 817 | 931 |
| Backpacking | 413 | 493 | 572 | 651 | Kickball | 413 | 493 | 572 | 651 |
| Bagging grass, leaves | 236 | 281 | 327 | 372 | Mowing lawn | 325 | 387 | 449 | 512 |
| Bakery, light effort | 148 | 176 | 204 | 233 | Music, playing drums | 236 | 281 | 327 | 372 |
| Basketball game, competitive | 472 | 563 | 654 | 745 | Music, playing guitar | 177 | 211 | 245 | 279 |
| Basketball, shooting baskets | 266 | 317 | 368 | 419 | Music, playing piano | 148 | 176 | 204 | 233 |
| Boxing, sparring | 531 | 633 | 735 | 838 | Pushing stroller, walking with children | 148 | 176 | 204 | 233 |
| Canoeing, rowing, moderate | 413 | 493 | 572 | 651 | Rock climbing | 472 | 563 | 654 | 745 |
| Carrying heavy loads | 472 | 563 | 654 | 745 | Roller blading | 708 | 844 | 981 | 1117 |
| Carrying infant | 207 | 246 | 286 | 326 | Running, light | 472 | 563 | 654 | 745 |
| Cycling, leisure | 236 | 281 | 327 | 372 | Running, moderate | 738 | 880 | 1022 | 1163 |
| Cycling, mountain bike | 502 | 598 | 695 | 791 | Running, vigorous | 944 | 1126 | 1308 | 1489 |
| Downhill snow skiing | 354 | 422 | 490 | 558 | Shoveling snow | 354 | 422 | 490 | 558 |
| Farming, baling hay, cleaning barn | 472 | 563 | 654 | 745 | Sitting, office work | 89 | 106 | 123 | 140 |
| Fishing, general | 177 | 211 | 245 | 279 | Skateboarding | 295 | 352 | 409 | 465 |
| Football or baseball, playing catch | 148 | 176 | 204 | 233 | Soccer, playing | 413 | 493 | 572 | 651 |
| Football, competitive | 531 | 633 | 735 | 838 | Standing, ex. clerk | 136 | 162 | 188 | 214 |
| Football, touch, flag | 472 | 563 | 654 | 745 | Swimming competitive | 590 | 704 | 817 | 931 |
| Frisbee, ultimate | 472 | 563 | 654 | 745 | Swimming leisurely | 354 | 422 | 490 | 558 |
| Golf, general | 266 | 317 | 368 | 419 | Tennis playing | 413 | 493 | 572 | 651 |
| Gymnastics | 236 | 281 | 327 | 372 | Typing | 89 | 106 | 123 | 140 |
| Hockey, ice hockey | 472 | 563 | 654 | 745 | Volleyball playing | 177 | 211 | 245 | 279 |
| Horseback riding | 236 | 281 | 327 | 372 | Walking 2 mph , slow | 148 | 176 | 204 | 233 |
| Housework, light | 148 | 176 | 204 | 233 | Walking 4 mph , brisk | 224 | 267 | 311 | 354 |
| Housework, moderate | 207 | 246 | 286 | 326 | Weeding | 266 | 317 | 368 | 419 |
| Ice skating, average speed | 413 | 493 | 572 | 651 | Weight lifting, vigorous | 354 | 422 | 490 | 558 |
| Judo, karate, jujitsu, martial arts | 590 | 704 | 817 | 931 | Weight lifting, light | 177 | 211 | 245 | 279 |

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## Fitness Guru

Although magic diet pills seem appealing for some, nothing can replace good ol' 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 DOIT. 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.



## Cheryl

H: 5'6" W: 175
Age: 53 Part-time Secretary

Calories Consumed: 2500



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?

## 

| 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 | 0 cals |

Data from: caloriecount aboutcom

| 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 |
|  |  |
| 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 |



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 $\geq$ Goal (Weight Gain] Consumption - Burn $\geq$ Goal

H.D.

H: 5'8"
W: 265
Age: 29 Moderate Activity
Weekly Goal:
Lose 3 lbs


| 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: $23 \begin{aligned} & \text { Very } \\ & \text { Active }\end{aligned}$
Weekly Goal:
Maintain Weight


| 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.



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.
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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 $\geq$ Goal $\quad$ (Weight Gain) Consumption - Burn $\geq$ Goal

H.D.

H:5'8" W: 265
Age: $29 \begin{aligned} & \text { Moderate } \\ & \text { Activity }\end{aligned}$
Weekly Goal:
Lose 3 lbs


| 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


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.

## Sydney

H:5'2" W: 108
Age: $31 \begin{gathered}\text { Moderate } \\ \text { Activity }\end{gathered}$
Weekly Goal:
Gain 2 lbs

| 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



| 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.


| 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.


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 |
|  |  |
|  |  |
|  |  |
|  | TOTAL |


| DIET |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| BREAKFAST |  | LUNCH | cal | item | DINNER |  |  |  |
| item | cal | item |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | TOTAL |  |  |  |  |

[[Diet Total] - [Fitness Total]|> [Calorie Goal] $\qquad$ - $\qquad$ $>$ $\qquad$

In your plan, does Angelina meet her goal?


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 |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


| BREAKFAST |  | DIET |  | LUNCH |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| cal |  | item | cal | item | cal |
| item |  |  |  |  |  |
|  |  |  |  |  |  |
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|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  | TOTAL |  |

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

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


H: 6'1" W: 180
Age: 51 Politician
Weekly Goal: Lose 4 lbs


GOAL: Barack is preparing for his next political race. The White House food has gone right to his thighs and he wants to appear slimmer-and trimmer for his national debates. His wants to lose 4 pounds a week.

RESTRICTION: Barack definitely has to have something from every food group in each meal. His time is limited so he only has 3 hours for him to workout. He also must play basketball.

| FITNESS |  |
| :--- | :---: |
| Activity | cal |
|  |  |
|  |  |
|  |  |
|  |  |
|  | TOTAL |


| DIET |  |  |  |  |  |  |  | DINNER |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| BREAKFAST |  | LUNCH |  | cal | item |  |  |  |  |
| item | cal | item |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | TOTAL |  |  |  |  |  |

|[Diet Total] - (Fitness Total]|> [Calorie Goal] $\qquad$ - $\qquad$ $>$ $\qquad$

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


H: 5'6" W: 130
Age: $30 \quad$ Singer
Weekly Goal:
Gain 1 lbs

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 |
|  |  |
|  |  |
|  |  |
|  | TOTAL |


| DIET |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| BREAKFAST |  | LUNCH | cal | item | DINNER |
| item | cal | item |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

[Diet Total] - [Fitness Total]|> [Calorie Goal] $\qquad$ - $\qquad$ $>$ $\qquad$

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


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 |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


| DIET |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| BREAKFAST |  | LUNCH |  | cal | item |
| item | cal | item |  |  | DINNER |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

[|Diet Total] - [Fitness Total]|> [Calorie Goal] $\qquad$ - $\qquad$ $>$ $\qquad$

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


[^0]:    Data from: http://www.nutristrategy.com/activitulist4.htm

