**Counting Calories**  Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_ Per:\_\_

TheBasal Metabolic Rate (BMR) is the number of Calories you burn each day just being alive.

**Women**: BMR = 655 + ( 4.35 x weight in pounds ) + ( 4.7 x height in inches ) - ( 4.7 x age in years )
**Men**: BMR = 66 + ( 6.23 x weight in pounds ) + ( 12.7 x height in inches ) - ( 6.8 x age in year )

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| 1. What is your BMR? (tip: do the multiplication for each part in parenthesis separately, and then add/subtract)
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To calculate the number of Calories you use per day (on average), you must also factor in your activity level.

* Sedentary (little or no exercise) : = BMR **x 1.2**
* Lightly active (light exercise/sports 1-3 days/week) : = BMR x **1.375**
* Moderately active (moderate exercise/sports 3-5 days/week) : = BMR x **1.55**
* Very active (hard exercise/sports 6-7 days a week) : = BMR x **1.725**
* **E**xtremely active (very hard exercise/sports & physical job or 2x training) : = BMR x **1.9**

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| 1. Assuming that your weight is stable (not changing much), how many Calories does your body use each day?
2. What **%** of your daily Calories is used just to keep your body alive? (Cal just to be alive $÷$ Cal used each day)

What % is used to power your daily activities? (Subtract first answer from 100%) |

**The over-simplified explanation:**

* If you consume an **equal** amount of Calories that you use, your weight stays the same.
* If you consume **more** Calories than you use, the extra energy is stored as fat, and you gain weight.
* If you consume **fewer** Calories than you use, your body takes energy from storage, and you lose weight.
* 1 pound of fat = 3,500 Calories.

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| 1. Based on the above explanation, what are the 2 ways you can lose weight, and 2 ways you can gain weight?
2. Wister Marren requires 2,500 Calories per day based on his current eating and exercising habits. He decides to go on a **short-term diet** and only eats 2,000 Calories each day instead. How many days will it take for him to lose 10 lbs. (pounds)? (hint 1: How many Calories are in 10 lbs.?) (hint 2: How many Calories does Wister Marren’s body need to use from fat storage each day?)

 1. After reaching his goal, Wister Marren is satisfied and ends his diet, returning to his old eating habits. Why do short-term diets not work? That is, why will he regain the weight he lost?

(hint: consider how decreasing his weight affects his BMR)  |

**Things to consider:**

* In order to lose weight, you need a “Caloric deficit” (you use more Calories than you consume). When the Caloric deficit is too large, your body can’t get energy from your fat storage quickly enough. To help out in this emergency, proteins are broken down to be converted into energy! (You don’t need that **muscle**, do you?)
* In order to gain weight, you need a “Caloric surplus” (you consume more Calories than you use). If you want to gain muscle, you need to exercise to stimulate muscle growth and eat enough protein to build that muscle. If you consume more protein than your body can use at the time, it gets turned into fat along with any extra Calories your body doesn’t use.
* You can gain muscle and lose fat at the same time (or lose muscle and gain fat at the same time).
* Muscle is more dense than fat (muscle weighs more than the same volume of fat).
* A pound of muscle uses more energy than a pound of fat.

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| 1. Why is it unhealthy and counter-productive to **lose** weight too quickly?

(hint: your answers should refer to gaining or losing fat and muscle)Why is it unhealthy and counter-productive to **gain** weight too quickly?1. Wister Marren is trying to exercise a lot instead of dieting, and he’s looking more physically fit, but he’s not losing any weight! At one point, he was even gaining weight! He’s worried that he’ll never meet his goal of losing 10 lbs. What’s going on?!
2. Why is it inaccurate for people to say they want to “lose weight”? What should they say instead, and why?
3. What weighs more: a pound of fat, or a pound of muscle?
4. The Basal Metabolic Rate (BMR) which you calculated earlier, and the Body Mass Index (BMI) which tells you if you’re too skinny or too fat, both take into account your weight, height, age, and sex. What are these formulas not taking into consideration, and how could this flaw make the BMR and BMI misleading?

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**It’s really complicated.** Your Calories consumed and used are not everything.

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| 1. What else do you need to think about when you make decisions about your eating and exercise habits, besides just Calories used and Calories consumed?
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