Complete this lab if the results of Lab 6.1 indicate that a change in body composition would be beneficial for your health and well-being. This lab will help you set a target body weight based on a goal for BMI or percent body fat. Remember, though, that a wellness lifestyle that includes a sensible diet and regular exercise is more important for most people than achieving any specific target weight. In addition, you may have other health risk factors that could affect your body composition goals. You may decide to choose a lifestyle goal for your body composition target instead of a specific BMI, percent body fat, or target body weight. For example, you may set goals of increasing physical activity and improving your diet, and then let your body composition change as a result. Choose an approach that best fits your goals and preferences.

**Equipment**

Calculator (or pencil and paper for calculations)

**Preparation**

Determine percent body fat and/or calculate BMI as described in Lab 6.1. Keep track of height and weight as measured for these calculations.

**Height:** _______  **Weight:** _______

**Instructions: Target Body Weight from Target BMI**

Use the chart below to find the target body weight that corresponds to your target BMI. Find your height in the left column and then move across the appropriate row until you find the weight that corresponds to your target BMI. Remember, BMI is only an indirect measurement of body composition. It is possible to improve body composition without any significant change in weight. For example, a weight training program may result in increased muscle mass and decreased fat mass without any change in overall weight. For this reason, you may want to set alternative or additional goals, such as improving the fit of your clothes or decreasing your waist measurement.

![Chart for finding target body weight from target BMI](chart.png)


[www.mhhe.com/fahey](http://www.mhhe.com/fahey)
Current BMI ___________  Target BMI ___________  Target body weight (from chart) ___________
Alternative/additional goals ________________________________________________________________

Note: You can calculate target body weight from target BMI more precisely by using the following formula: (1) convert your height measurement to meters, (2) square your height measurement, (3) multiply this number by your target BMI to get your target weight in kilograms, and (4) convert your target weight from kilograms to pounds:
1. Height ________ in. × 0.0254 m/in. = height ________ m
2. Height ________ m × height ________ m = ________ m²
3. Target BMI ________ × height ________ m² = target weight ________ kg
4. Target weight ________ kg × 2.2 lb/kg = target weight ________ lb

Instructions: Target Body Weight from Target Body Fat Percentages
Use the formula below to determine the target body weight that corresponds to your target percent body fat.
Current percent body fat ___________  Target percent body fat ___________

Formula

Example: 180-lb male, current percent body fat of 24%, goal of 21%

1. To determine the fat weight in your body, multiply your current weight by percent body fat (determined through skinfold measurements and expressed as a decimal).
   \[ \text{Current weight} \times \text{percent body fat} \]
   \[ 180 \text{ lb} \times 0.24 = 43.2 \text{ lb} \]
2. Subtract the fat weight from your current weight to get your current fat-free weight.
   \[ \text{Current weight} - \text{fat weight} \]
   \[ 180 \text{ lb} - 43.2 \text{ lb} = 136.8 \text{ lb} \]
3. Subtract your target percent body fat from 1 to get target percent fat-free weight.
   \[ 1 - \text{target percent body fat} \]
   \[ 1 - 0.21 = 0.79 \]
4. To get your target body weight, divide your fat-free weight by your target percent fat-free weight.
   \[ \frac{\text{fat-free weight}}{\text{target percent fat-free weight}} \]
   \[ \frac{136.8 \text{ lb}}{0.79} = 173 \text{ lb} \]

Note: Weight can be expressed in either pounds or kilograms, as long as the unit of measurement is used consistently.

1. Current body weight ________ \( \times \) percent body fat ________ = fat weight ________
2. Current body weight ________ - fat weight ________ = fat-free weight ________
3. \( 1 - \text{target percent body fat} \) ________ = target percent fat-free weight ________
4. Fat-free weight ________ \( \div \) target percent fat-free weight ________ = target body weight ________

Setting a Goal
Based on these calculations and other factors (including heredity, individual preference, and current health status), select a target weight or range of weights for yourself.
Target body weight: ________