

Individual Task 1: Aerobics

Points: ___ out of a max of 25 (not incl. optional)

Name:

Part 1:

A number of people monitor their heart rate as they exercise. There are several ways to determine your target heart rate range. One way is the following.

First, you compute the maximum heart rate as

$$220 - \text{age}$$

The target exercise range is from 70-85% of the maximum heart rate. For example, consider a person who is 36 years old. 220 minus the age (36) is 184. 70% of 184 is 128 and 85% of 184 is 156. So the exercise range is between 128 and 156.

What does this have to do with Python? Well, I'd like you to write a program that will ask the user for the following input:

their name
their occupation
their age

and output for example:

Ann, a 18 yr. old college student, should exercise for 30 minutes with a heartrate between 128 and 156.

Okay, that's the exercise. Good luck!

Part 2:

Another method for determining your exercise range is called Maffetone Heart Rate Training. In this scheme, exercise is divided into three different zones or ranges: Mostly Aerobic Pace (MAP), Most Efficient Pace (MEP), and the Speedy Aerobic Pace (SAP). These are computed as follows

The upper limit of MEP = $180 - \text{age}$

The lower limit of MEP = upper limit of MEP - 10

The MAP range = lower limit of MEP - 20 to lower limit of MEP

The SEP range = upper limit of MEP + 20

Using that method, write a program that asks a person his age and prints the following (assume the person enters the number 20):

MAP (Mostly Aerobic Pace) = 130 - 150

MEP (Most Efficient Pace) = 150 - 160

SEP (Speedy Aerobic Pace) = 160-180