

# Calculating Target Heart Rate Zones using the Percentage of heart Rate Reserve Method

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This page can be found on page 125 of the 9<sup>th</sup> edition of the textbook.

1. Maximal Heart Rate

$$\begin{aligned} &= 208 - (.7 \times \text{your age}) \\ &= 208 - (.7 \times 22) \\ &= 208 - (15.4) \\ &= \mathbf{193} \end{aligned}$$

This computation is an approximation of your maximal heart rate; it is adjusted mathematically by your age. This computation allows you to figure your maximal heart rate without actually getting your heart to a maxed state.

2. Calculate Resting Heart Rate

Count the number of heart beats (in a resting state) for 15 seconds. Multiply the number of heart beats by four (4). This is your resting heart rate. In this example, we are using **68**.

3. Calculate Heart Rate Reserve (HRR)

$$\begin{array}{r} 193 \\ -68 \\ \hline 125 \end{array}$$

4. Calculation Threshold of Training (Beginning of target zone)

$$\begin{array}{r} 125 \text{ (HRR)} \\ \times .40 \text{ (take 40 \% of the HRR)} \\ \hline 50.00 \\ + 68 \text{ (resting heart rate)} \\ \hline 118 \text{ (threshold or beginning of target zone)} \end{array}$$

5. Calculation of Upper limit heart rate

$$\begin{array}{r} 125 \text{ (HRR)} \\ \times .85 \text{ (take 85\% of HRR)} \\ \hline 106.25 \\ + 68 \text{ (resting heart rate)} \\ \hline 174 \text{ (heart rate upper limit during a cardio workout)} \end{array}$$

**Note** - The percentages 40 and 85 are recommended for the non athlete. If you seek a higher level of cardio fitness, you may adjust these percentages upward.