

# Option One: TARGET HEART RATE (Equation only)

## ***LAND...***

1.  $220 - \text{your age} = \text{Maximum Heart Rate}$
2.  $\text{Max HR} \times 60\% = \text{Lower End for the Target Heart Rate (land)}$

## ***NOW, for WATER...***

3. Take the heart rate you calculated in Step 2 and subtracted 10%:
  - $\text{Land Target HR} \times 90\% = \text{Target Heart Rate (for water activities)}$

## ***EXAMPLE: Person = 70 years of age***

1.  $220 - 70 = 150 \text{ bpm (Max HR)}$
2.  $150 \times 60\% = 90 \text{ bpm (Lower Target HR - land)}$

***...then...***

3.  $90 \times 90\% = 81 \text{ bpm (Lower Target HR - water)}$



## Option 2: Using the Karvonen Method (Consider the individual)

### LAND...

1.  $220 - \text{your age} = \text{Maximum Heart Rate}$
2.  $\text{Max HR} - \text{RESTING HEART RATE} = W$
3.  $W \times 60\% = Y$
4.  $Y + \text{Resting HR} = \text{Lower Target Heart Rate (land)}$



### *NOW, for WATER...*

5. Take the heart rate you calculated in Step 4 and subtracted 10%:
  - $\text{Land Target HR} * 90\% = \text{Lower End for the Target Heart Rate (for water activities)}$

*EXAMPLE: Person = 70 years of age*

1.  $220 - 70 = 150$  (Max HR)
2.  $150 - 72 = 78$  (W)
3.  $78 \times 60\% = 47$  (Y)
4.  $47 + 72 = 119$  bpm (Lower Target HR – land) ...*then*...
5.  $119 * 90\% = 107$  bpm (Lower Target HR – water)

### **\*RESTING HEART RATE:**

**Try to take Heart Rate for one week first thing in the morning (*i.e. BEFORE sitting up in bed and before alarm clock rings*)... then take the week's average**