

Karvonen Formula:

$220 - \text{Age} = \text{Maximum HR}$

$\text{Max HR} - \text{Resting HR}^1 = \text{HRR (heart rate reserve)}$

$\text{HRR} \times \text{Training Intensity \%} + \text{Rest HR} = \text{Training HR}$

220 - _____ (your age) = _____ (your Max HR)

_____ (your Max HR) - _____ (your Resting HR) = _____ (HRR)

Use HRR below...

BASE (50 - 65% training HR) = New Leaf Zone 1: _____ to _____

50% = _____ (HRR) x 50% + _____ (rest HR) = _____ (50% training HR)

65% = _____ (HRR) x 65% + _____ (rest HR) = _____ (65% training HR)

TRAINING (60 - 75% training HR) = New Leaf Zone 2: _____ to _____

60% = _____ (HRR) x 60% + _____ (rest HR) = _____ (60% training HR)

75% = _____ (HRR) x 75% + _____ (rest HR) = _____ (75% training HR)

TEMPO (70 - 85% training HR) = New Leaf Zone 3: _____ to _____

70% = _____ (HRR) x 70% + _____ (rest HR) = _____ (70% training HR)

85% = _____ (HRR) x 85% + _____ (rest HR) = _____ (85% training HR)

INTERVAL (80-95% training HR) = New Leaf Zone 4: _____ to _____

80% = _____ (HRR) x 80% + _____ (rest HR) = _____ (80% training HR)

95% = _____ (HRR) x 95% + _____ (rest HR) = _____ (95% training HR)

Example: A 30 year old woman with a resting heart rate (RHR) of 60bpm wants to train in Zone 3. Her HR training zones are:

Karvonen Formula: $220 - 30 = 190$ MHR
 $190 - 60 = 130$ HRR

HR zones (70%): $130(0.70) + 60 = \mathbf{151.0}$ (low end)

HR zones (85%): $130(0.85) + 60 = \mathbf{170.5}$ (high end)

¹Resting Heart Rate

- Before getting out of bed in the morning
- Counting from zero, take your 1min heart rate (in your neck)
- Do this 3 days in a row for accuracy