

Equation for Estimating VO2Max for the One-Mile Run

VO2Max = maximum rate of oxygen that can be taken up and utilized by the body during exercise

$$\text{VO2MAX} = (.21 \times \text{Age} \times \text{Gender}) - (.84 \times \text{BMI}) - (8.41 \times \text{time}) + (.34 \times \text{time} \times \text{time}) + 108.94$$

- **Gender = 1** (males) **0** (females)
- **Time** = is in minutes (***convert one-mile run time from minutes and seconds to minutes for use in this equation by dividing the seconds by 60 and adding the resulting decimal to the minutes***)

$$\begin{array}{r} (.21 \times 17 \times 0) - (.84 \times 21.5) - (8.41 \times 15) + (.34 \times 15 \times 15) + 108.94 \\ 3.57 \quad - \quad 18.06 \quad - \quad 126.15 \quad + \quad 76.5 \quad + \quad 108.94 \\ \text{VO2Max} = 44.8 \end{array}$$

Note: VO2Max will not be estimated if one-mile run time exceeds 13 minutes. The student will be reported as Needs Improvement.