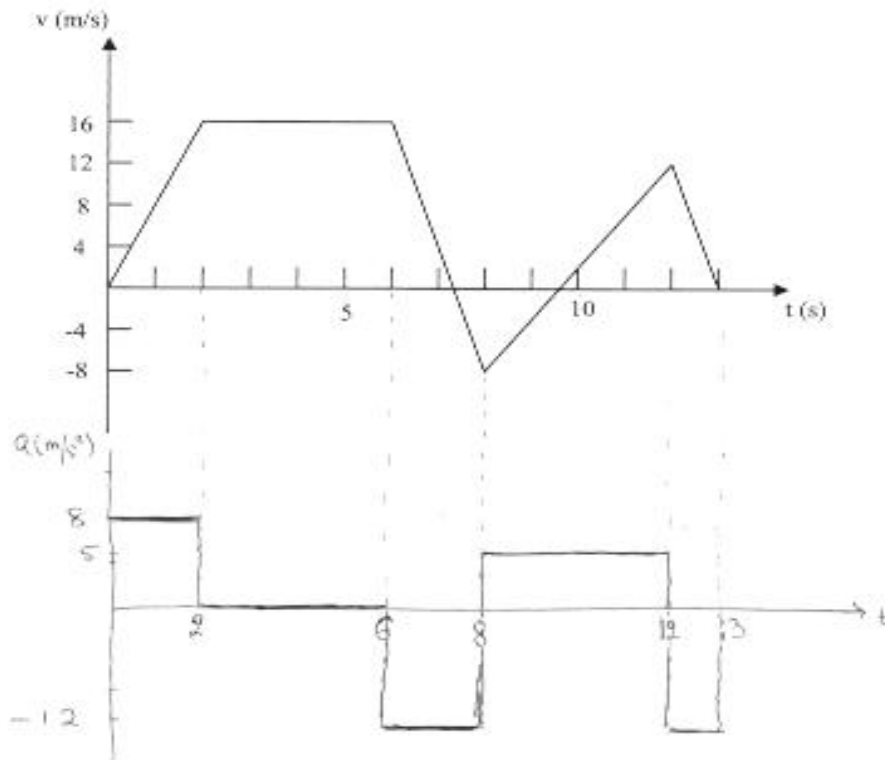


Physics 101 Rec
Quiz#1
Chapter 2

Instructor: Dr. A. Mekki

Name: Key Id: _____ Sect: _____

1. From the graph of velocity versus time graph, plot the corresponding acceleration versus time graph from $t = 0$ to $t = 13$ s.



$$0 < t < 2s \quad \bar{a} = \frac{\Delta v}{\Delta t} = \frac{16-0}{2-0} = +8 \text{ m/s}^2 = \text{Constant}$$

$$2s < t < 6s \quad \bar{a} = 0$$

$$6s < t < 8s \quad \bar{a} = \frac{\Delta v}{\Delta t} = \frac{-8-16}{8-6} = -\frac{24}{2} = -12 \text{ m/s}^2 = \text{Const.}$$

$$8s < t < 12s \quad \bar{a} = \frac{\Delta v}{\Delta t} = \frac{12-(-8)}{12-8} = +\frac{20}{4} = +5 \text{ m/s}^2 = \text{Const.}$$

$$12s < t < 13s \quad \bar{a} = \frac{\Delta v}{\Delta t} = \frac{0-12}{13-12} = -12 \text{ m/s}^2 = \text{Const.}$$