

**Engineering Physics I – Fall 2015**

**Quiz 2 – September 17, 2015**

**Name:**

**1.** Convert an acceleration of  $10 \text{ m/s}^2$  into  $\text{m/min}^2$  (m is meters, min is minutes).

You can approximate  $10/6$  as 1.6

- a)  $6 \times 10^3 \text{ m/min}^2$                       c)  $3.6 \times 10^4 \text{ m/min}^2$   
b)  $6 \times 10^4 \text{ m/min}^2$                       d)  $1.6 \times 10^{-1} \text{ cm}^2$

**2. True or False** – Acceleration only affects the magnitude (speed) of the velocity

**3.** Two balls fall from a height  $h$  at the same time. Ball 1 has an initial velocity in the horizontal (x) direction of  $V_{0,x}$ , while Ball 2 has no initial x velocity and falls straight down. **Circle the best answer:**

- a) Which ball hits the ground first?      **Ball 1    Ball 2    Both hit at same time**
- b) Which ball has a faster *total* speed when it hits the ground?      **Ball 1    Ball 2    Both have the same speed**