

Study Guide

Module 9

1. Reference point - A point against which position is measured.

Vector Quantity - A physical measurement that contains directional information.

Scalar quantity - A physical measurement that does not contain directional information.

Acceleration - The time rate of change of an object's velocity.

Free fall - The motion of an object when it is falling solely under the influence of gravity.

2. No.

3. No.

4. a.) the 2 girls

b.) the boy

c.) the other girl

$$5. \frac{30 \text{ min.}}{1} \times \frac{1 \text{ hr.}}{60 \text{ min.}} = 0.5 \text{ hr. } \left(\frac{1}{2}\right)$$

$$\frac{10 \text{ mi.}}{0.5 \text{ hr.}} = 20 \frac{\text{mi}}{\text{hr.}}$$

$$6. \frac{6 \text{ km.}}{1} \times \frac{1000 \text{ m.}}{1 \text{ km.}} = 6000 \text{ m.} \quad 2700 \div 6000 = 2.2 \frac{\text{m}}{\text{sec.}}$$

$$45 \times 60 = 2,700 \text{ sec.}$$