**2.4 – Worksheet – add on**

1. How do you find the average speed of an object?
2. Suppose an object moves along the *x*-axis with its position function given by $x\left(t\right)=5t^{2}+7t$, where *t* is measured in seconds.
a) What is the average speed from *t* = 2 to *t* = 4 seconds?

b) How fast is the object moving at exactly *t* = 4 seconds?
3. An rover on another planet drops an object off a cliff. The object falls $y=gt^{2}$ m in *t* sec, where *g* is a constant. Five seconds after the object was dropped it lands 30m below.
a) Find the value of *g*.

b) Find the average speed for the fall.

c) With what speed did the rock hit the bottom?