

Due Date: _____


Completed: _____

Formative Assessment #16 – Position, Velocity and Acceleration

C3.5: I can solve problems involving higher order derivatives (position, velocity and acceleration).

A particle starting from rest at time $t = 0$ moves with position function $s(t) = t^4 - \frac{t^2}{2}$ where position is measured in meters and time is measured in seconds.

- a) At what time does the particle change direction?
- b) When is the particle moving in the positive direction and the negative direction. *include a neatly labelled number line as part of your solution.*
- c) What is the particle's acceleration at $t = 1$?

Code(s)	Learning Categories							 Assessed by:
C3.5	a)	EH	EL	AH	AL	NH	NL	
	b)	EH	EL	AH	AL	NH	NL	
	c)	EH	EL	AH	AL	NH	NL	
Notes								