2017 SMM2 9/10Investigation

You are to write a 'story' using both words and a graph. Your story is about rates of change. Start with a graph (along the lines of P1 of this week's notes). The graph should include constant rate of change, zero rate of change and non-constant rate of change.

a) Calculate the gradient for an interval of constant rate of change. Show the interval on the graph.

b) Calculate the average rate of change for a section of the non-constant rate of change section. Again show this on your graph.

c) Calculate the instantaneous rate of change for a point on your non constant rate of change section. Show the tangent and how you calculated the gradient.

d) Explain your graph in words. Use words such as 'constant speed', 'stopped', 'acceleration', and deceleration'.

You will be marked on

- Accuracy and neatness of the graph
- Coherence of the story
- Accuracy of calculations