

## 8 Behaviour of the difference quotient as $h \rightarrow 0$

Marks

1. Draw the graph of  $y = x^2$  [5]
  - A. Draw secant from the origin to  $f(0.5)$  and  $f(1)$ . Compare their gradients
  - B. Draw the tangent to the curve at the origin. What is the gradient of the tangent ?
  - C. Which secant line had the closest slope to the gradient of the tangent
  - D. What can you conclude about the accuracy of the slope of a secant

