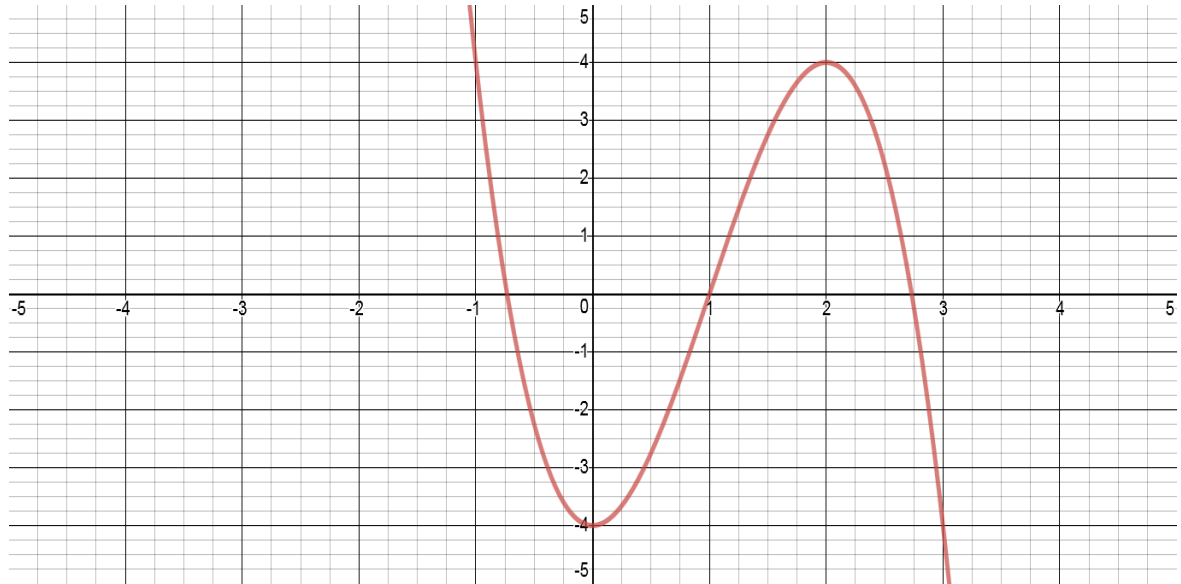


**Tangent Lines (2.1)****Secant Lines****Tangent Lines**

1a) What is the average rate of change on the interval  $[0, 1]$ ? What is the corresponding line called?

1b) What is the average rate of change on the interval  $[2, 3]$ ?

1c) Estimate the instantaneous rate of change at  $x = 2.5$ ?

1d) What is the instantaneous rate of change at  $x = 0$ ? What is the line corresponding line called?

2) Estimate the instantaneous rate of change of  $T(x) = x^3 + 3x^2 - x - 3$  at  $x = 1$ .