



ID number:

Septembre 14, 2014

Quiz 1 (20 min)

Exercise 1: (5 points)

- a) Find the rate of change of $g(x) = x^3 - 3x^2 + 4$ over $[1; 2]$
- b) Find the slope of the curve of $g(x)$ at $P(2; 0)$
- c) Find the equation of the tangent line to $g(x)$ at P .

Exercise 2: (3 points & 2 points)

Evaluate each of the following limits:

a) $\lim_{x \rightarrow 0} \frac{\frac{1}{x-1} + \frac{1}{x+1}}{x}$

b) $\lim_{x \rightarrow 8} \frac{\sqrt[3]{x} - 2}{x - 8}$