

Name and surname:

U number:

## Calculus I - MAC 2311 - Section 003

### Quiz 2

09/05/2018

**Instructions:** The total number of points of this quiz is 10. You will get an extra point if you solve correctly the last exercise.

1) Compute the following limits. Show all your work and state any special limits used.

a)  $\lim_{x \rightarrow 4} \frac{x^2 - 5x + 4}{x^2 - 2x - 8} =$

b)  $\lim_{t \rightarrow 1} \frac{1 - t^2}{\sqrt{t} - 1} =$

c)  $\lim_{\theta \rightarrow 0} \frac{\sin(5\theta)}{10\theta} =$

2) State the *Squeeze theorem*.

3) Let  $f(x)$  be a function such that  $-1 \leq f(x) \leq x^2 - 2x$ , for all  $x$ . Compute  $\lim_{x \rightarrow 1} f(x)$ .