Read each problem **very carefully** before starting to solve it and do only what is asked.
Each problem is worth around 5 points. It is necessary to show **all** your work. Correct
answers without explanations are worth 0 points. GOOD LUCK!!

1. [4 points] Consider the function $f(x) = x^2 - 5x + 1$. Compute the following and simplify.

   $f(a) =$

   $f(a + h) =$

   $\dfrac{f(a + h) - f(a)}{h} =$

2. [4 points] Consider the function $f(x) = x^2 - x$. Find the value(s) of the input for which
   $f(x) = 6$.

3. [2 points] Consider the relation $\{(1, 3), (2, 5), (3, 10), (4, 5), (5, 1)\}$. Answer the following, giv-
   ing a short explanation for each.

   (a) Is this relation a function?

   (b) If it is a function, is it one-to-one?