

## College Algebra Quiz 4

Name \_\_\_\_\_ Score \_\_\_\_\_

**Please Print Clearly**

### Circle the correct response

1. T F If  $t$  is a zero of multiplicity  $k$  and  $k$  is an odd number, the graph crosses the  $x$ -axis at  $(t, 0)$ .
2. T F If  $t$  is a zero of multiplicity  $k$  and  $k$  is an even number, the graph crosses the  $x$ -axis at  $(t, 0)$ .
3. T F The graph of a polynomial function is a continuous smooth graph with no sharp corners.
4. T F The graph of a rational function is a continuous smooth graph with no sharp corners.

### **Organize your work Show your work**

5. What are the possible rational zeros of the function whose rule is  $f(x) = 2x^5 - 2x + 1$

6. Does the function in Question 5 have any rational zeros?  
If yes, what are they. If no, why not.

7. Does the function in Question 5 have any real zeros?  
If yes, explain why. If no, explain why not.