**Mrs.Volynsklaya AP Calculus LIMITS HW/CW problems Quiz 10/9 Name\_\_\_\_\_\_\_\_\_\_\_\_**

EVALUATE THE LIMITS ALGEBRAICALLY. **SHOW ALL WORK**. BOX your ANSWERS.

1. =
2. =
3. =
4. =
5. =
6. =
7. =
8. =
9. Find the value of *a* for which the function  is continues \_\_\_\_\_\_\_\_\_

10. Does the IVT apply in each case? If the theorem applies, find the guaranteed value of *c*. Otherwise, explain why the theorem does not apply.

a.  on the interval [3, 7], *N* = 10.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. on the interval [2, 10], *N* = 5.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. on [0, 6], *N* = 4\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_