

**Business PreCalculus**    MATH 1643 Section 004, Spring 2014  
**Homework 20**

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- 1-** Describe the end behavior of  $f(x) = -x^2(x^2 - 1)(x + 1)$ .
  
- 2-** Use the intermediate value theorem to show that the polynomial  $f(x) = x^4 - x^3 - 10$  has a real solution in the interval  $[2, 3]$ .
  
- 3-** Find the zeros of  $f(x) = x^3 - 6x^2 + 8x$  and state the multiplicity of each zero.
  
- 4-** Explain why the function  $f(x) = 2x^3 - 5x + 1$ ,  $0 < x < 3$  is not a polynomial function.