

MS 100 Spring 2006 Test 4 • Name:

1. Perform the long division  $(x^3 + 3x^2 - 33x - 35) \div (x - 5)$

2. Find the y-intercept for  $f(x) = x^3 + 3x^2 - 33x - 35$

3. Find the zeros (x-intercepts) for  $f(x) = x^3 + 3x^2 - 33x - 35$

4. Is the lead coefficient for  $f(x) = x^3 + 3x^2 - 33x - 35$  positive or negative?

5. Is  $f(x) = x^3 + 3x^2 - 33x - 35$  an even or odd function?

6. Use the above information to help you sketch a somewhat accurate graph of the function.

