Leading Coefficient Test / End Behavior / Multiplicity

Name:

Date: PD:

OPEN NOTES QUIZ (20 Product Points)

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| --- | --- | --- |
| zeros | Even or Odd multiplicity | Crosses x-axis (yes/no) |
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|  |  |  |

Bonus:

Given the function *f*(x) = x2 – 3x + 1 can you verify f(x) = 3 at some point on the interval (-1, 2). Explain your reasoning.

Use the given function to answer the following questions and then give a quick sketch of the function

*f*(x) = x4 – x3 – 6x2

a)

b) y-intercept: \_\_\_\_\_\_\_\_\_

c) End behavior (circle one for each side):

 Right side: Rises right / Falls right

 Left side: Rises left / Falls left

d) Give a test point between each x – intercept.

 ( , )

( , )

e) Use the information you determined above to sketch the graph of *f*(x) on the graph provided.