3.1-3.3 Quiz Review Name _____

Write each polynomial in standard form, identify the leading coefficient, and classify it by degree and amount of terms.

1) $-8x^4 - 9x^2 - 5$

Standard Form:

Name:

Leading Coefficient:

2) $-2x^2 + 8x^5 - 5x^2$

Standard Form:

Name:

Leading Coefficient:

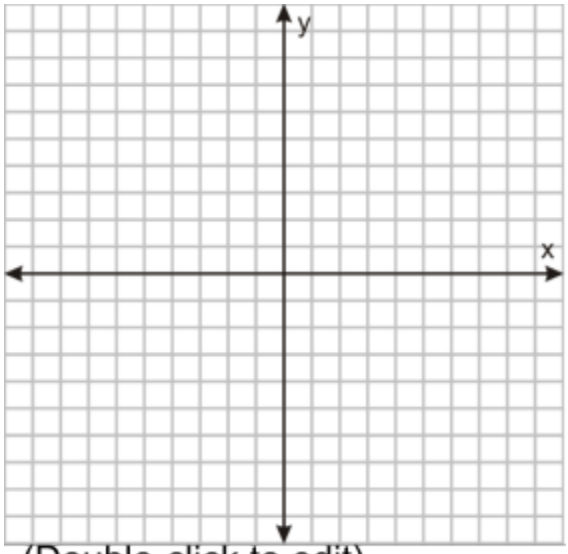
Sketch the graph of each function and give the listed information. Round to the nearest thousandth, if necessary.

3) $f(x) = -x^3 + 4x^2 - 7$

- **Zeros**:
- **End Behavior**:
- **Relative Maximum(s)**:
- **Relative Minimum(s)**:
- **Intervals**:

  Increasing:

  Decreasing:



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4) $f(x) = x^4 - 5x^3 + 5x^2 + x + 1$

• **Zeros**:

• **End Behavior**:

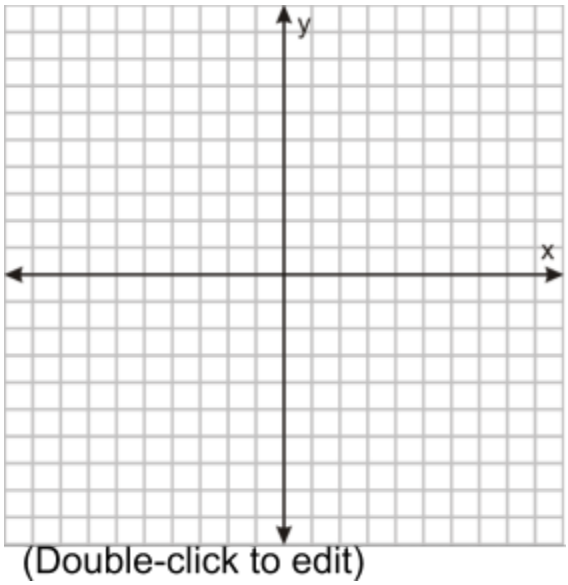
• **Relative Maximum(s)**:

• **Relative Minimum(s)**:

• **Intervals**:

Increasing:

Decreasing:



Write a polynomial function that has the given zeros and multiplicities:

5) 1, 4, 3 (multiplicity 2)