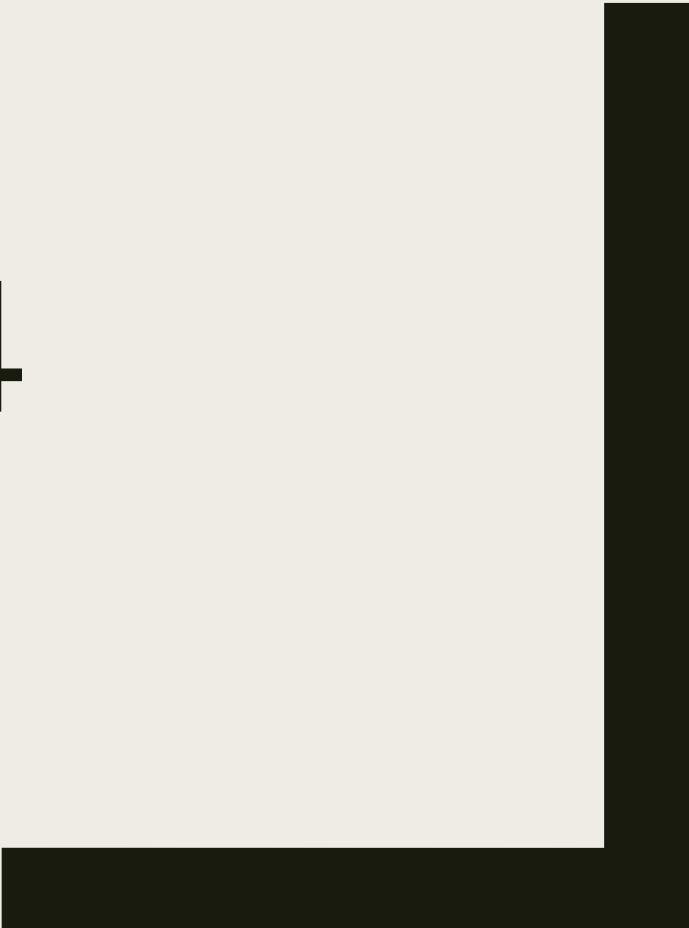




ALGEBRA 4

Day 44



Bell Work

Solve

1.) $x^2 - 2x = 35$

From Last Time

Finish: Page 245 #12– 20 (even)

Page 253 #41, 42

5.1 Polynomial Functions

Objective: To classify Polynomials.

To Use the of Graph Polynomial
Functions to Describe End
Behavior.

Identifying Polynomials:

Polynomial: $f(x) = a_n x^n + a_{n-1} x^{n-1} + \dots + a_1 x + a_0$, where $a_n \neq 0$,

Exponents are all whole numbers, and coefficients are all real numbers

Leading Coefficient = a_n

Constant Term = a_0

Degree = n

Standard Form: when terms are written in descending order of exponents from left to right

Example: $f(x) = -3x^3 + x + 7x^2 - 10 + 5x^4$

- Standard Form:
- Lead Coefficient:
- Constant:
- Degree:

Decide whether the function is a polynomial function. If it is, write the function in standard form and state the degree, type and leading coefficient.

$$f(x) = 12 - 5x$$

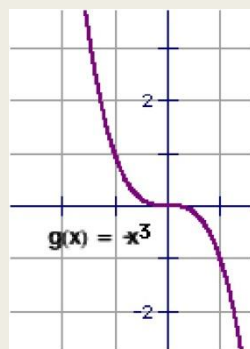
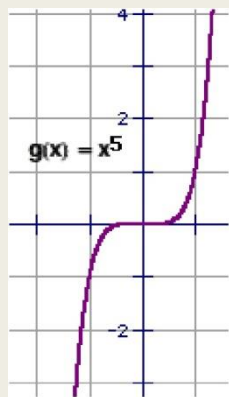
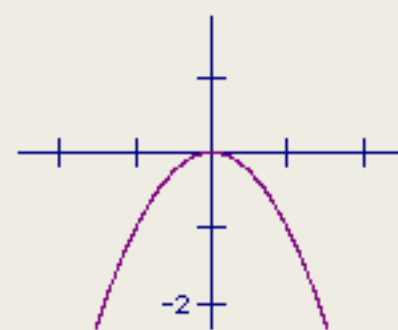
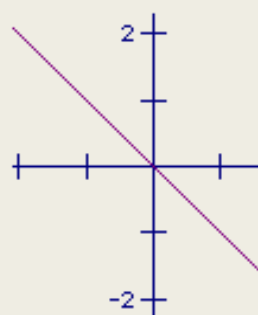
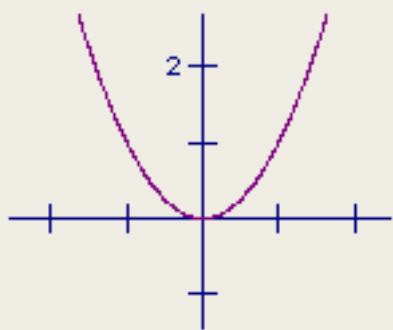
$$f(x) = x - 3x^{-2} - 2x^3$$

$$f(x) = 36x^2 - x^3 + x^4$$

$$f(x) = x + \pi$$

End Behavior: the behavior of the graph as x approaches positive and negative infinities

$x \rightarrow +\infty$ is read as “ x approaches positive infinity”



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

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

For Next Time

page 285 #3-5, 9-27 (odd), 39, 43, 48

***For 9-27 and 43 change directions to:

***Write in Standard Form, Identify the Degree,
Lead Coefficient, Constant, and End Behavior***