

Prerequisites & Investigations**LEARNING PLAN**

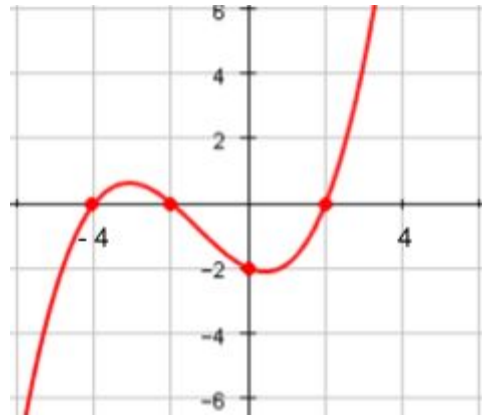
(Chapter 1)

Skill/Understanding:	Review/Practice Problems
Function Notation <ul style="list-style-type: none"> <input type="checkbox"/> I can evaluate $f(x)$ when given x. <input type="checkbox"/> I can solve for x when given a value for $f(x)$. <input type="checkbox"/> I can use function notation to express inputs and outputs of a function. 	1-4, 1-5, 1-6, 1-17, 1-24, 1-25, 1-38, 1-56, and CL 1-110. Checkpoint 3
Graphing and Describing Graphs <ul style="list-style-type: none"> <input type="checkbox"/> I can sketch graphs of functions. <input type="checkbox"/> I can completely describe the graphs using appropriate vocabulary. <input type="checkbox"/> I can determine the domain and range when given a graph. <input type="checkbox"/> I can determine the domain of a square root function or a rational function given the equation. 	1-22, 1-42, 1-60, 1-83, 1-97, and CL 1-114.
Linear Equations <ul style="list-style-type: none"> <input type="checkbox"/> I can solve linear equations with fractions or decimals. <input type="checkbox"/> I can solve linear equations with absolute value. <input type="checkbox"/> I can solve a linear system of equations using substitution or elimination. <input type="checkbox"/> I can create multiple representations of a linear relationship (graph, equation, table, description, etc.) 	1-9, 1-28, 1-44, 1-95, CL 1-113, and 3-49. 1-16, 1-39, 1-58, 1-70, 1-105, and CL 1-117. Checkpoint 6
Solving Quadratics <ul style="list-style-type: none"> <input type="checkbox"/> I can solve quadratic equations with the quadratic formula. <input type="checkbox"/> I can solve quadratic equations by factoring and using the Zero Product Property (ZPP). 	1-19, 1-23, 1-45, 1-47, 1-87, 1-104, and CL 1-116. Checkpoint 2
Intercepts <ul style="list-style-type: none"> <input type="checkbox"/> I can determine the x- and y-intercepts of a function from an equation, a table, or a graph. 	1-71, 1-89, 1-91 d,
Multiplying Polynomials <ul style="list-style-type: none"> <input type="checkbox"/> I can multiply polynomial expressions using an area model. 	1-91
Exponent Laws <ul style="list-style-type: none"> <input type="checkbox"/> I can use the laws of exponents to simplify expressions. 	1-67 a & b,

PRACTICE PROBLEMS:

1) Describe the graph below completely.

- shape
- line of symmetry or asymptotes
- oriented upward or downward
- increasing or decreasing
- Important points (such as x and y-intercepts, endpoints, vertices, maximum or minimum points, etc.)
- domain and range
- continuous or discrete
- whether it is a function



2) Complete the table and graph the equation:

$$y = \frac{1}{2}x^2 + 4$$

3) For $f(x) = (x + 1)^2$, evaluate each of the following. Show all work!

a. $f(2)$

b. $f(-3)$

c. $f(x) = 25$

4) Solve:

a. $\frac{x-4}{3} = 7 - \frac{x}{6}$

b. $-3|x + 5| = -21$

c. $x^2 - 8x + 15 = 0$

5) Solve the system of equations algebraically.

$$y = 3x + 4$$

$$y = 2x - 5$$

6) Multiply: $(2x - 6)(2x + 4x - 1)$

7) Simplify:

a. 5^0

b. $(xy^3z)^3$

c. $(2x^2y^5)(3x^4y)$

d. x^{-5}

e. $\frac{x^5y}{x^2y^2}$