

C11 - 7.0 - Absolute Value/Reciprocal Review

1) Simplify.

- a) $|2 - 5| =$
- b) $|5| - |-7| =$
- c) $-|-8| =$

2) Solve algebraically

- a) $|x| = 4$
- b) $|x - 3| = 7$
- c) $2|x - 3| - 1 = 7$
- d) $|x + 5| = -9$
- e) $|x^2 - 1| = 3$
- f) $|-x^2 + 1| = x + 1$
- g) $|x^2 - 2x - 3| = 5$

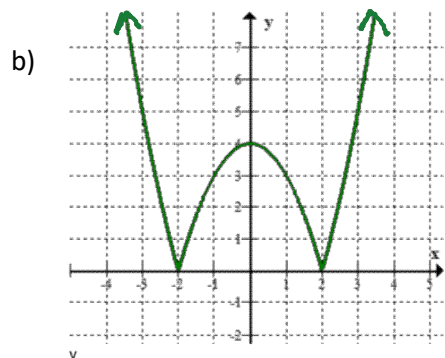
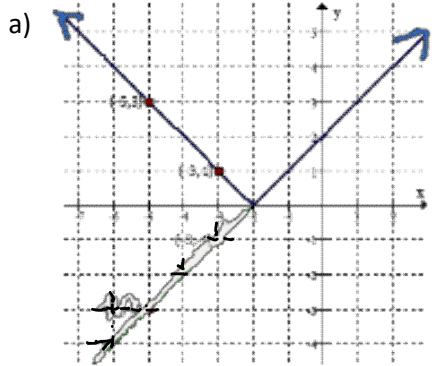
Solve Graphically and algebraically.

- h) $|x + 2| = 4$
- i) $|x^2 - 2x| = 3$

3) Graph and write a piecewise function

- a) $y = |x - 2|$
- b) $y = |2x - 1|$
- c) $y = |x^2 - 4|$
- d) $y = |x^2 - 2x - 3|$
- e) $y = |-x^2 + 1|$

4) Find the Equation



5) Find the Restrictions/NPV's

- a) $\frac{1}{x - 2}$
- b) $\frac{1}{x^2 + 5x - 6}$
- c) $\frac{1}{x^2 + 1}$

Simplify
Solve
Algebraically
Graphically
Piecewise
Restrictions/NPV's
Reciprocals
Asymptotes
Invariant Points
Find Equation

6) Graph the following and its reciprocal on the same graph, identify the equation of and draw and label the vertical asymptote(s), and label the invariant points.

- a) $y = x + 2$
- b) $y = 2x - 1$
- c) $y = x^2 - 4$
- d) $y = x^2 - 2x - 3$
- e) $y = x^2 + 1$

7) Find the Equation

