

Intro to Graphing Relations/Functions

- 1) What is the graph of an equation?
- 2) What is an x-intercept? What do we always know about x-intercepts?
- 3) What is a y-intercept? What do we always know about y-intercepts?

For each function below do each of the following:

- a) Make a t-table that includes negative and positive inputs.
- b) Plot the ordered pairs and graph the function.
- c) Plot and label the x and y intercepts.
- d) Explain how the graph and the equations are related.

4) $y = x$

5) $y = x^2$

6) $y = |x|$

7) $y = 2^x$

8) $y = \sqrt{x}$

9) $y = x + 2$

10) $y = x^2 - 1$

11) $y = |x| + 3$

12) $y = 2^x - 2$

13) $y = \sqrt{x} - 3$

14) $y = -x$

15) $f(x) = -x^2$

16) $y = -|x|$

17) $f(x) = -2^x$

18) $y = -\sqrt{x}$

19) $y = x + 4$

20) $f(x) = (x + 2)^2$

21) $f(x) = |x - 3|$

22) $y = 2^{x+3}$

23) $f(x) = \sqrt{x-1}$

24) $f(x) = 2x$

25) $y = 1/2x^2$

26) $f(x) = 1/3|x|$

27) $f(x) = 3^x$

28) $y = 4\sqrt{x}$