Algebra 1 9.7

Identify and graph step functions

Identify and graph absolute value functions

Identify and graph piecewise functions

step function

(greatest integer function)

absolute value

piecewise

Quiz 9.7 Mon.

KeyConcept Absolute Value Function

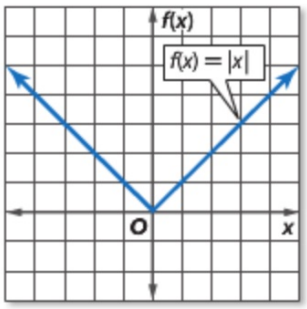
Parent function: $f(x) = |x|$, defined as

$$f(x) = \begin{cases} x \text{ if } x > 0 \\ 0 \text{ if } x = 0 \\ -x \text{ if } x < 0 \end{cases}$$

Type of graph: V-shaped

Domain: all real numbers

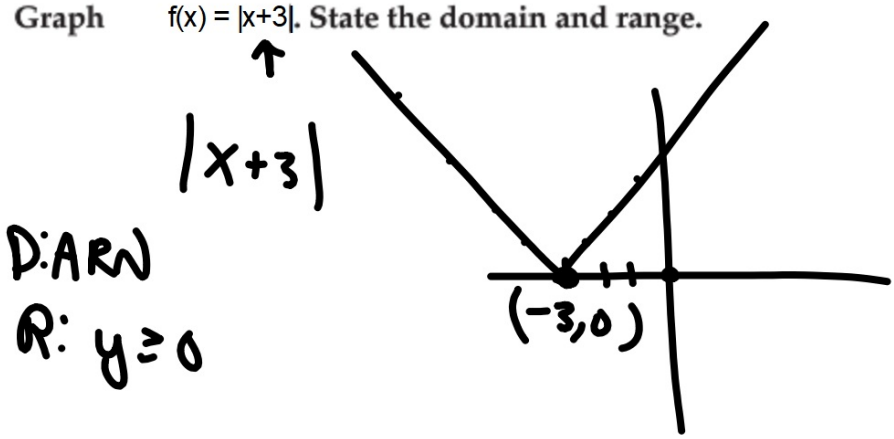
Range: all nonnegative real numbers



Parent graph

Example 3 Absolute Value Function

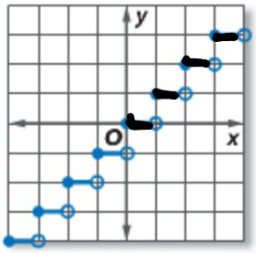
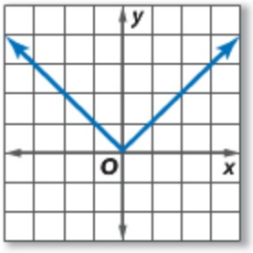
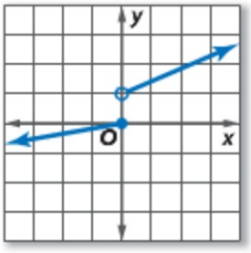
Graph $f(x) = |x+3|$. **State the domain and range.**



D: ARN

R: $y \geq 0$

ConceptSummary Special Functions

Step Function	Absolute Value Function	Piecewise-Defined Function
		

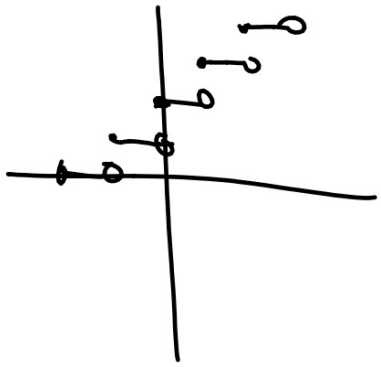
Return 9.5-9.6 Quizzes :(

Work with your partner to fix errors.
Help each other and explain. It is not about answers. It is about process.
Check answers with me as needed.
When both partners are finished, return quizzes to me.

D ARN

R integer

$$y = [[x]] + 2$$



$$f(x) = \begin{cases} 2x+1 & x > 3 \\ x-6 & x \leq 3 \end{cases}$$

$y = 2x + 1$

$y = 1x - 6$