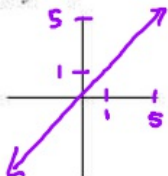


Warm-up: May 3

Name: _____
 Period: _____

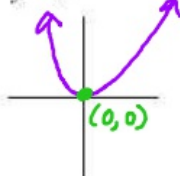
Sketch each of the parent graphs

a) $y = x$



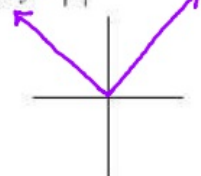
D: \mathbb{R}
 R: \mathbb{R}

b) $y = x^2$



D: \mathbb{R}
 R: $y \geq 0$
 vertex: $(0,0)$

c) $y = |x|$



D: \mathbb{R}
 R: $y \geq 0$
 vertex: $(0,0)$

List the transformations and sketch each graph. Determine the domain and range.

Draw the parent function with dotted lines on each graph.

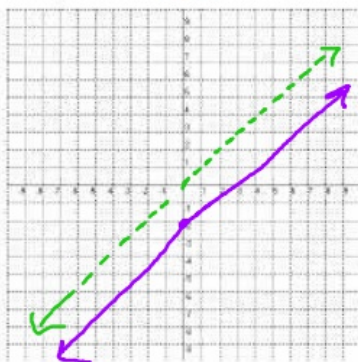
1. $y = x - 2$

Parent: $y = x$

Vertical Shift: 2 U D

Domain: \mathbb{R}

Range: \mathbb{R}



2. $y = (x + 1)^2$

Parent: $y = x^2$

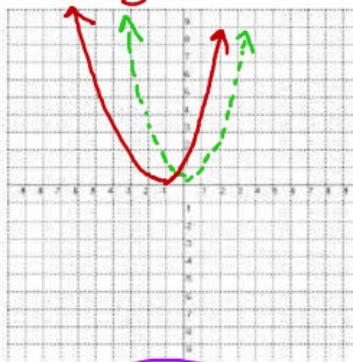
Horizontal Shift: 1 U R

Vertical Shift: 0 U D

Domain: \mathbb{R}

Range: $y \geq 0$

vertex: $(-1, 0)$



3. $y = |x - 2| - 5$

Parent: $y = |x|$

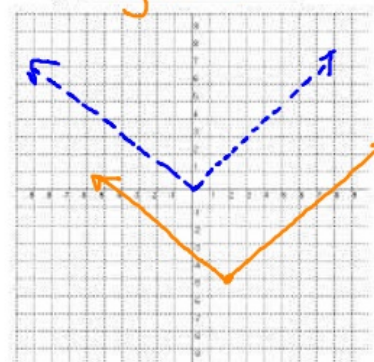
Horizontal Shift: 2 L R

Vertical Shift: 5 U D

Domain: \mathbb{R}

Range: $y \geq -5$

vertex $(2, -5)$



4. $y = -|x - 2| + 1$

Parent: $y = |x|$ reflection

Horizontal Shift: 2 L R

Vertical Shift: 1 U D

Domain: \mathbb{R}

Range: $y \leq 1$

vertex $(2, 1)$

