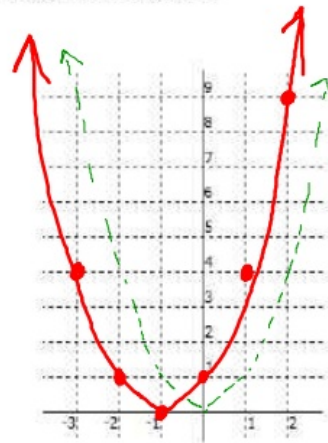
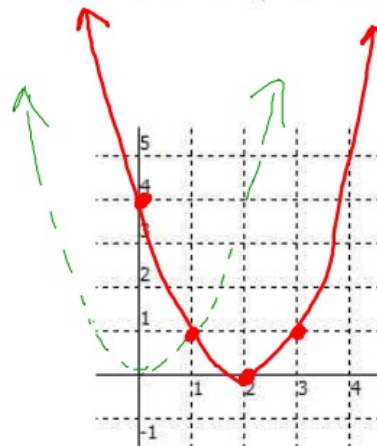


Complete the table, then graph both the Parent Function and it's child function.

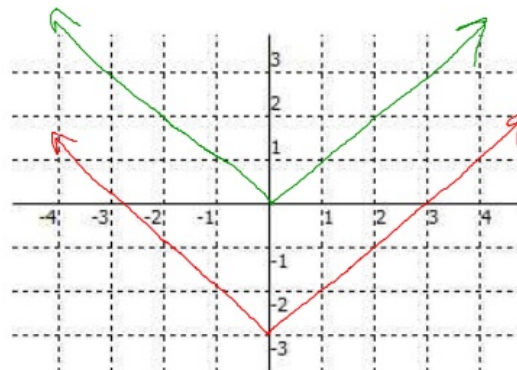
	Parent	child
x	$f(x) = x^2$	$g(x) = (x+1)^2$
2	$(2)^2 = 4$	$(2+1)^2 = 9$
1	$(1)^2 = 1$	$(1+1)^2 = 4$
0	$(0)^2 = 0$	$(0+1)^2 = 1$
-1	$(-1)^2 = 1$	$(-1+1)^2 = 0$
-2	$(-2)^2 = 4$	$(-2+1)^2 = 1$
-3	$(-3)^2 = 9$	$(-3+1)^2 = 4$



	Parent	child
x	$f(x) = x^2$	$g(x) = (x-2)^2$
3	$(3)^2 = 9$	$(3-2)^2 = 1$
2	$(2)^2 = 4$	$(2-2)^2 = 0$
1	$(1)^2 = 1$	$(1-2)^2 = 1$
0	$(0)^2 = 0$	$(0-2)^2 = 4$
-1	$(-1)^2 = 1$	$(-1-2)^2 = 9$

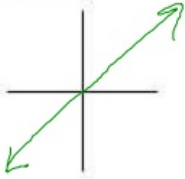


	Parent	child
x	$f(x) = x $	$g(x) = x - 3$
2	$ 2 = 2$	$ 2 - 3 = -1$
1	$ 1 = 1$	-2
0	$ 0 = 0$	-3
-1	$ -1 = 1$	-2
-2	$ -2 = 2$	-1



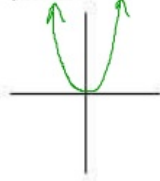
Sketch each of the parent graphs

a) $y = x$



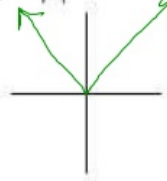
D: \mathbb{R}
R: \mathbb{R}

b) $y = x^2$



D: \mathbb{R}
R: $y \geq 0$

c) $y = |x|$



D: \mathbb{R}
R: $y \geq 0$

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

Draw the parent function with dotted lines on each graph.

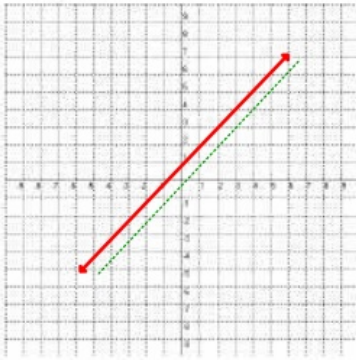
1. $y = x + 1$

Parent: $y = x$

Vertical Shift: 1 U D

Domain: \mathbb{R}

Range: \mathbb{R}



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

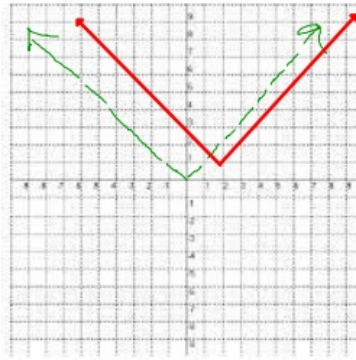
Parent: $y = |x|$

Horizontal Shift: 2 L R

Vertical Shift: 1 U D

Domain: \mathbb{R}

Range: $y \geq 1$



3. $y = (x - 5)^2$

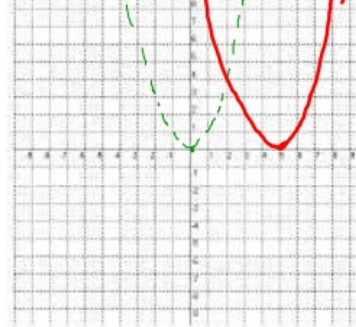
Parent: $y = x^2$

Horizontal Shift: 5 L R

Vertical Shift: 0 U D

Domain: \mathbb{R}

Range: $y \geq 0$



4. $y = (x + 1)^2 - 3$

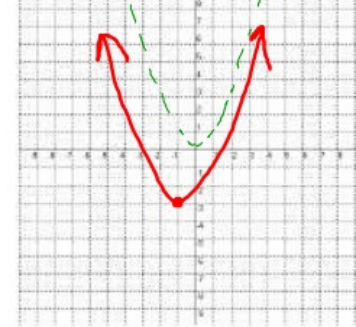
Parent: $y = x^2$

Horizontal Shift: 1 L R

Vertical Shift: 3 U D

Domain: \mathbb{R}

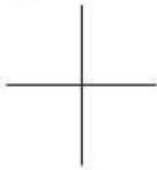
Range: $y \geq -3$



Parent Graphs

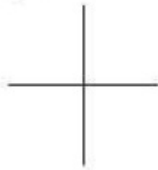
Sketch each of the parent graphs

a) $y = x$



D: _____
 R: _____

b) $y = x^2$



D: _____
 R: _____

c) $y = |x|$



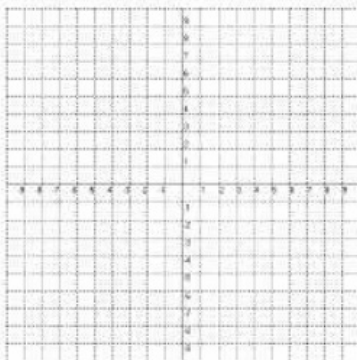
D: _____
 R: _____

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

Draw the parent function with dotted lines on each graph.

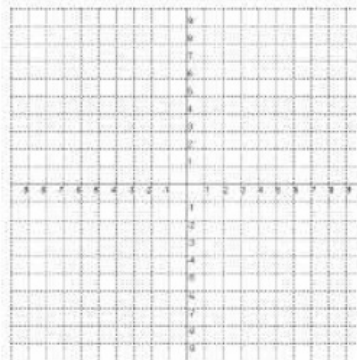
1. $y = x + 3$

Parent: _____
 Vertical Shift: ___ U D
 Domain: _____
 Range: _____



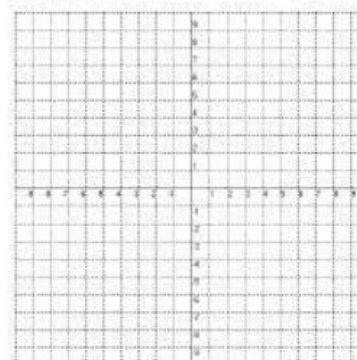
2. $y = x - 4$

Parent: _____
 Vertical Shift: ___ U D
 Domain: _____
 Range: _____



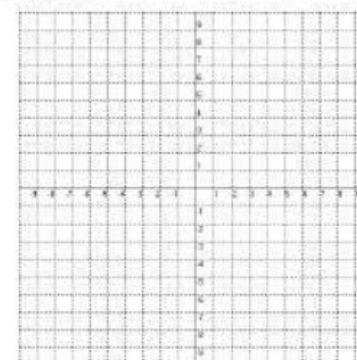
3. $y = x^2 + 3$

Parent: _____
 Horizontal Shift: ___ L R
 Vertical Shift: ___ U D
 Domain: _____
 Range: _____



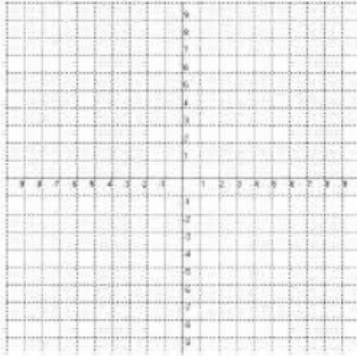
4. $y = (x + 3)^2$

Parent: _____
 Horizontal Shift: ___ L R
 Vertical Shift: ___ U D
 Domain: _____
 Range: _____



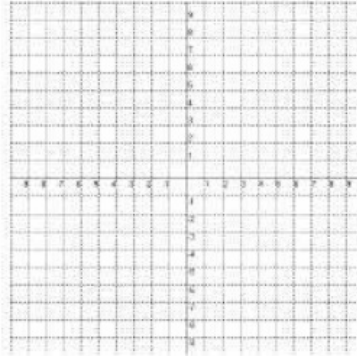
5. $y = (x+3)^2 - 1$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



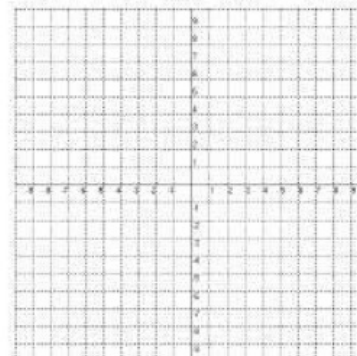
6. $y = (x-2)^2 - 5$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



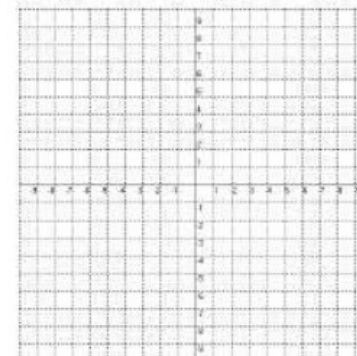
7. $y = |x| + 2$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



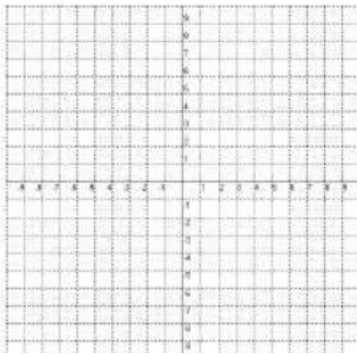
8. $y = |x+1|$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



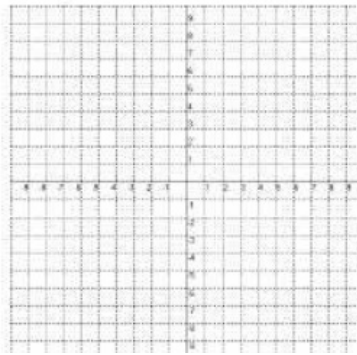
9. $y = |x+2| - 3$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



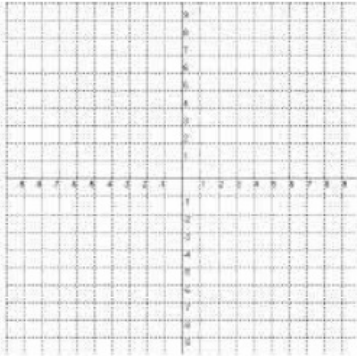
10. $y = |x-4| - 1$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



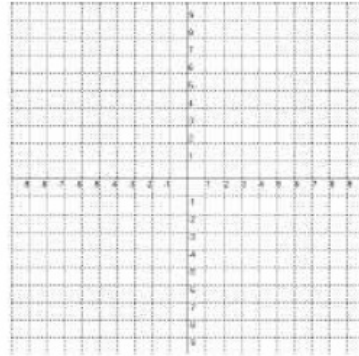
11. $y = x + 3$

Parent: _____
Vertical Shift: ___ U D
Domain: _____
Range: _____



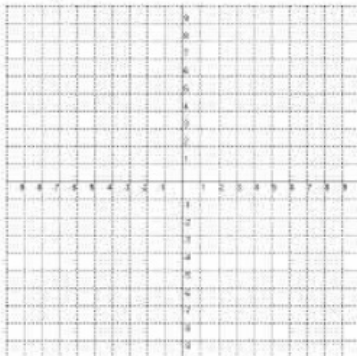
12. $y = -x$

Parent: _____
Vertical Shift: ___ U D
Domain: _____
Range: _____



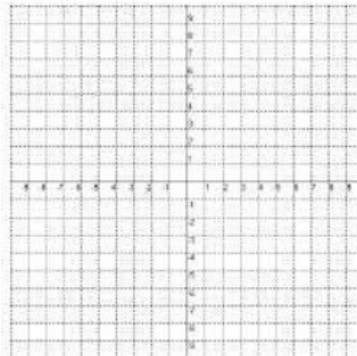
13. $y = -x + 3$

Parent: _____
Vertical Shift: ___ U D
Domain: _____
Range: _____



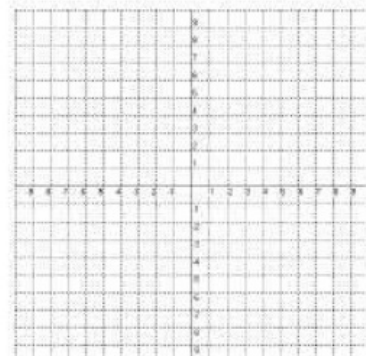
14. $y = |x - 3|$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



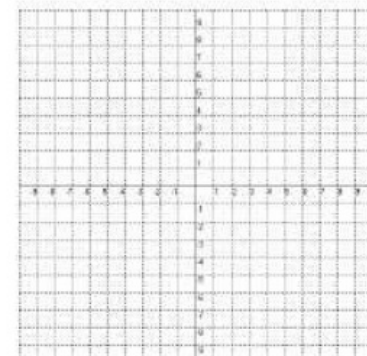
15. $y = -|x|$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



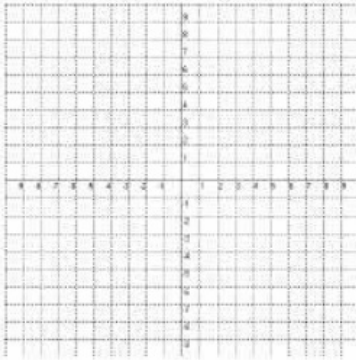
16. $y = -|x - 3|$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



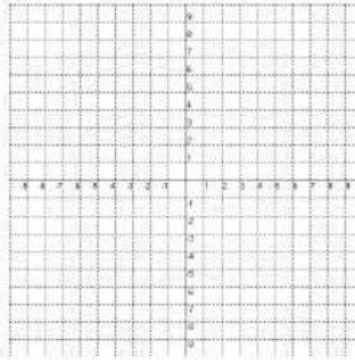
17. $y = x^2 - 1$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



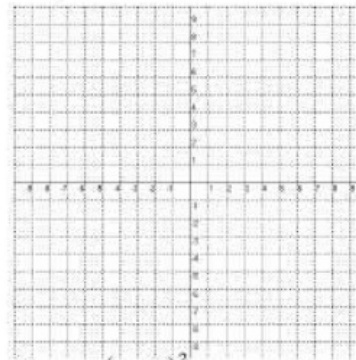
18. $y = (x + 2)^2 - 1$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



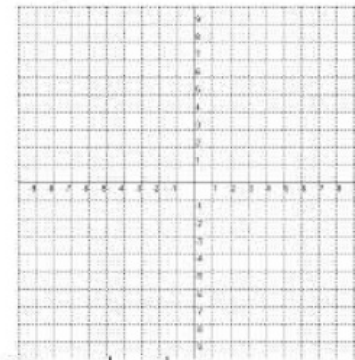
19. $y = |x| - 4$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



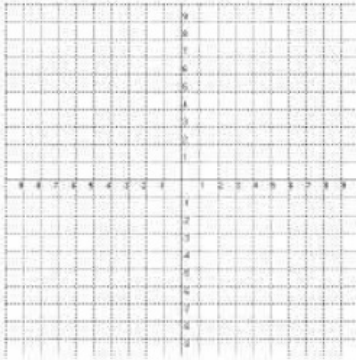
20. $y = |x - 2|$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



21. $y = (x + 5)^2$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____



22. $y = |x - 3| + 1$

Parent: _____
Horizontal Shift: ___ L R
Vertical Shift: ___ U D
Domain: _____
Range: _____

