

Describe the effect of the transformation for the parent function.

5. $f(x) = -x^2$

Vertical reflection

6. $h(x) = (x + h)^2$

translation h L

7. $g(x) = (x - h)^2$

translation h R

8. $h(x) = x^2 + k$

translation k U

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

translation k D

10. $g(x) = ax^2$

Vertical stretch if $|a| > 1$

Vertical shrink if $|a| < 1$

11) For each graph:

a) State the transformation.

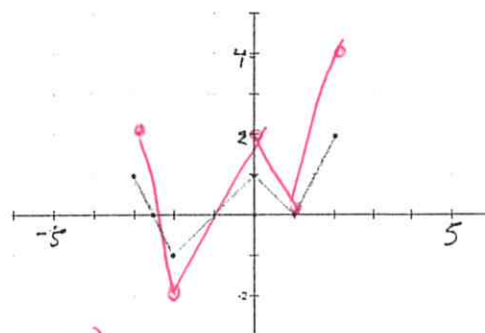
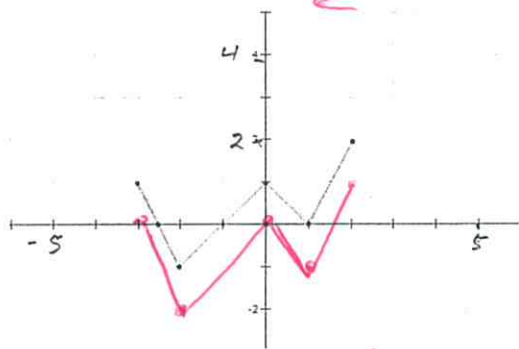
Translation 1 D

b) Sketch the new graph.

$f(x) \rightarrow f(x) - 1$

$f(x) \rightarrow 2f(x)$

Vertical stretch of 2



x	f(x)
-3	1
-2	-1
0	1
1	0
2	2

x	f(x) - 1
-3	0
-2	-2
0	0
1	-1
2	1

x	f(x)
-3	1
-2	-1
0	1
1	0
2	2

x	2f(x)
-3	2
-2	-2
0	2
1	0
2	4