

KEY

TRANSFORMATIONS OF TRANSFORMATIONS

PRACTICE PROBLEMS - Fill in the missing column.

	Original Equation	Transformations	New Equation
1	$f(x) = x^2$	Stretch by a factor of 3 Left 3 Down 2	$g(x) = 3(x+3)^2 - 2$
2	$y = \sqrt{x}$	Flip over x axis Right 2 Up 1 Compression by factor of $\frac{2}{7}$	$-\frac{2}{7}\sqrt{x-2} + 1$
3	$y = x $	Flip compression by $\frac{1}{2}$ R 2 U 1	$y = -\frac{1}{2} x-2 + 1$
4	$y = 3\sqrt{x} + 2$	Left 7 Down 3 Compression by factor of $\frac{2}{3}$	$2\sqrt{x+7} - 1$
5	$f(x) = 0.5 x-2 $	Stretch by factor of 2 Right 2 Down 3	$ x-4 - 3$
6	$g(x) = -x^3 - 2$	Flip over x-axis Right 4 Up 2	$(x-4)^3$
7	$g(x) = -x^3 - 2$	Flip R 3 D 1	$q(x) = (x-3)^3 - 1$
8	$f(x) = x-1 + 3$	Flip L 3 D 2	$p(x) = - x+2 + 1$
9	$y = 4\sqrt{x-1} + 7$	Stretch by a factor of 2 Flip over the x axis Left 2 Up 3	$-8\sqrt{(x+1)} + 10$
10	$f(x) = -(x+3)^2 - 1$	Right 10 Up 5 Stretch by a factor of 4	$-4(x-7)^2 + 4$
11	$g(x) = x^3 + 7$	Flip over x-axis Right 10 Compression by a factor of .01	$-.01(x-10)^3$
12	$y = 4 x+2 $	compression by $\frac{1}{2}$ R 4	$y = 2 x-2 $