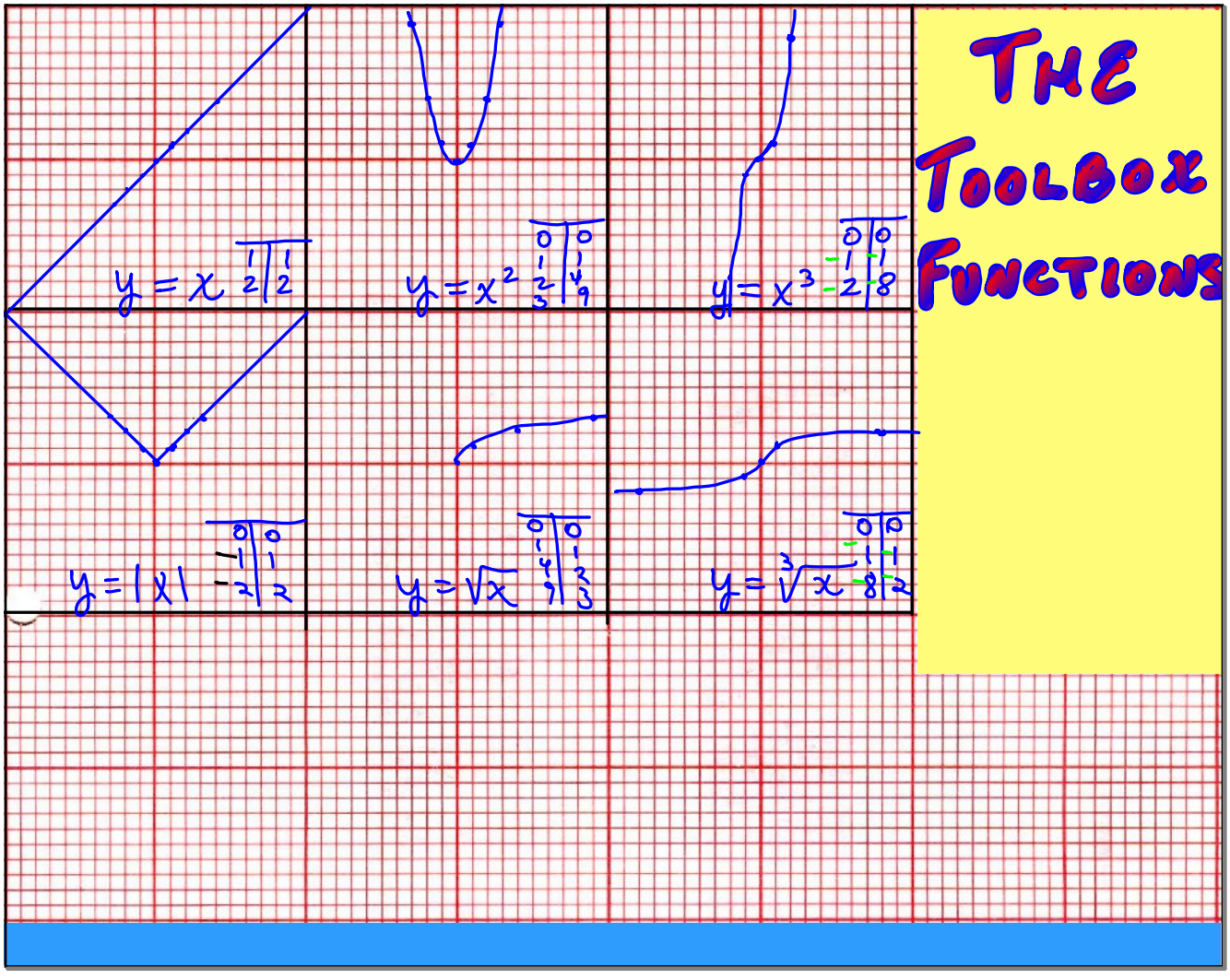
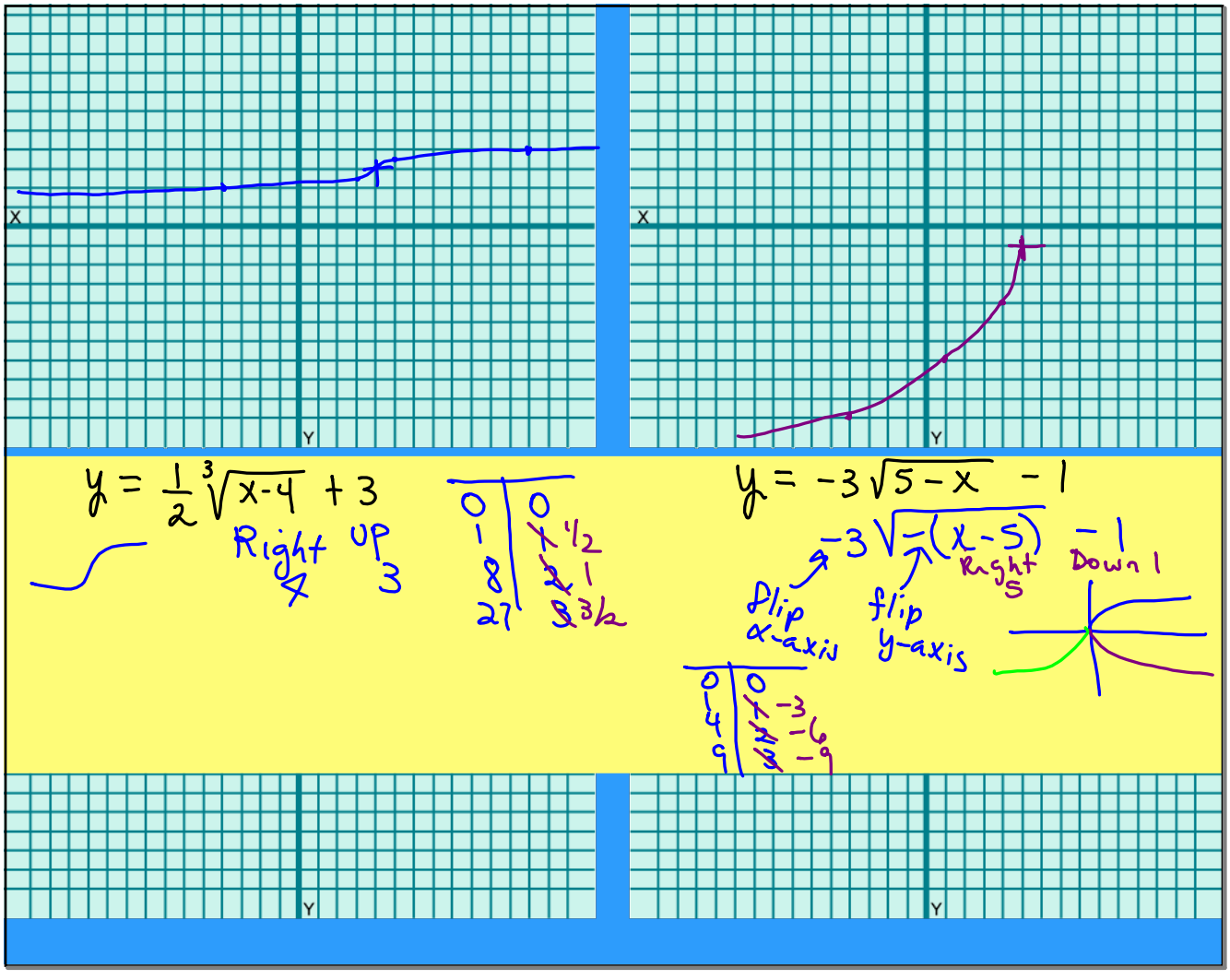
October 22, 2015



TRANSFORMATION RULES

Move up c units	$f(x)+c$		$y=x^2+3$
Move down c units	$f(x)-c$		$y=\sqrt{x}-5$
Left c units	$f(x+c)$		$y=(x+2)^3$
Right c units	$f(x-c)$		$y=\sqrt[3]{x-7}$
Reflect over x-axis	$-f(x)$		$y=-\lvert x\rvert$
Reflect over y-axis	$f(-x)$		
Stretch vertically	$a\,f(x)$	$\lvert a\rvert>1$	$y=4x^2$
Shrink vertically	$a\,f(x)$	$0<\lvert a\rvert<1$	$y=\frac{1}{4}\sqrt{x}$


X
Y
X
Y
$y = \frac{1}{2}\sqrt[3]{x-4} + 3$
Right 4 UP 3
0 | 0
1 | 1/2
8 | 1
27 | 3/2
$y = -3\sqrt{5-x} - 1$
$-3\sqrt{-(x-5)} - 1$
flip x-axis
flip y-axis
Right 5
Down 1
0 | 0
1 | -3
4 | -6
9 | -9
Y
Y

October 22, 2015