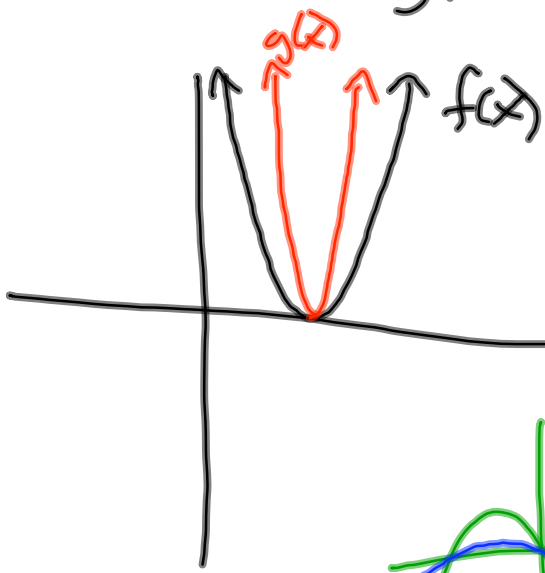
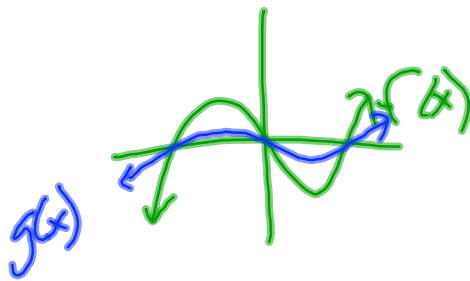


## Stretches

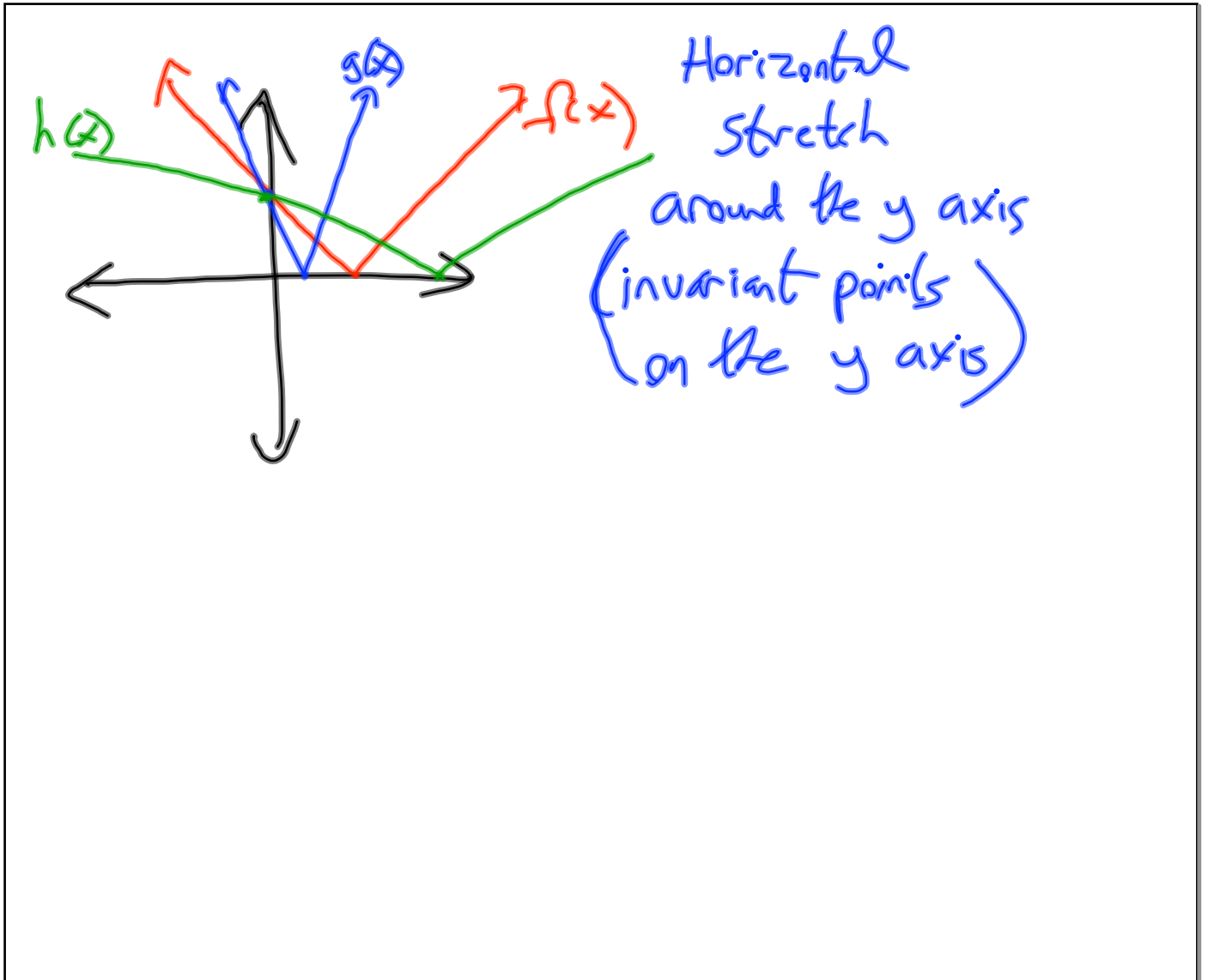
Two types vertical & horizontal

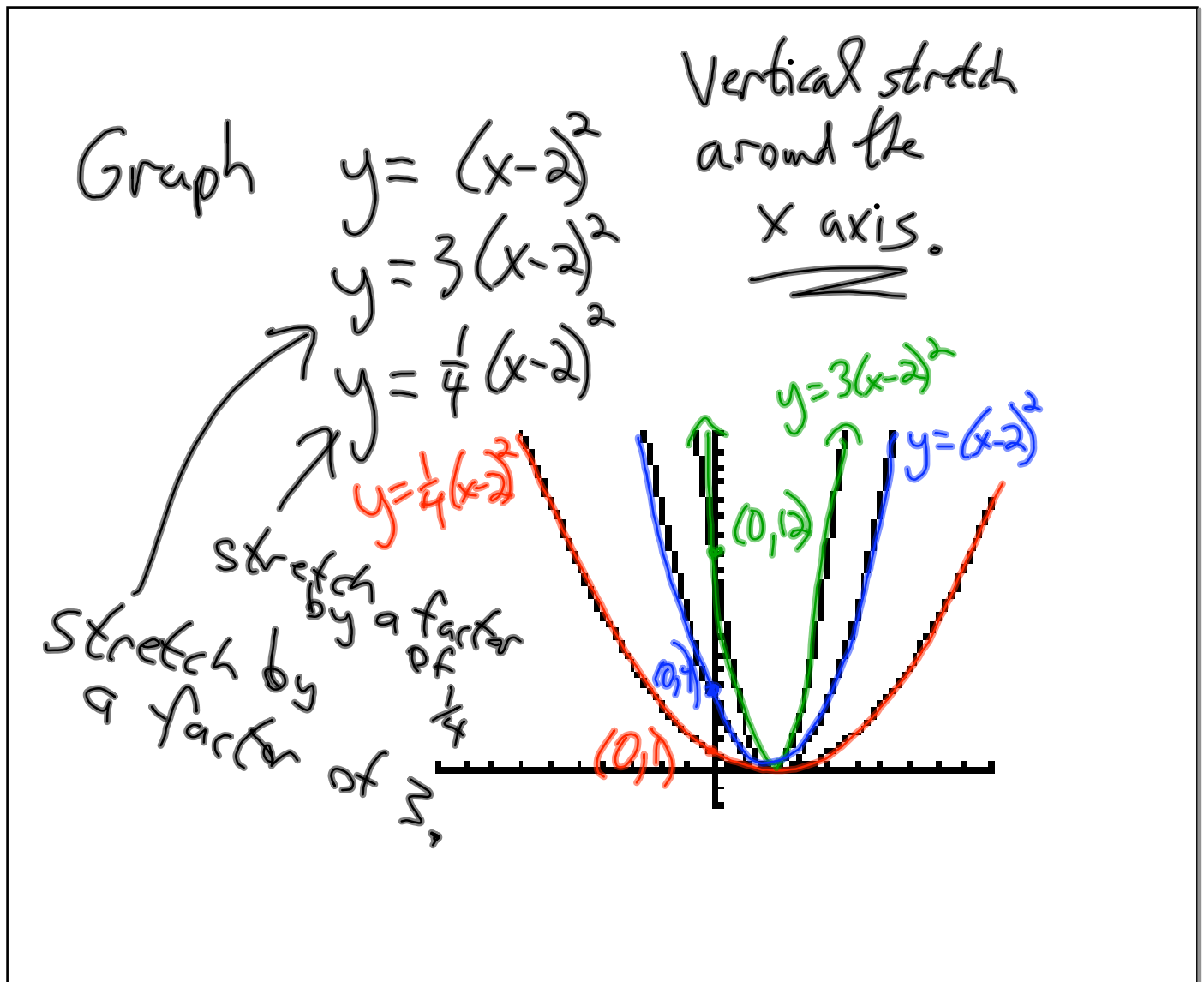


$g(x)$  is a vertical stretch of  $f(x)$  around the x axis



(the points on the x axis are invariant)





Graph

$$y = |x-4|$$

$$y = |2x-4|$$

$$y = \left|\frac{1}{2}x-4\right|$$

```

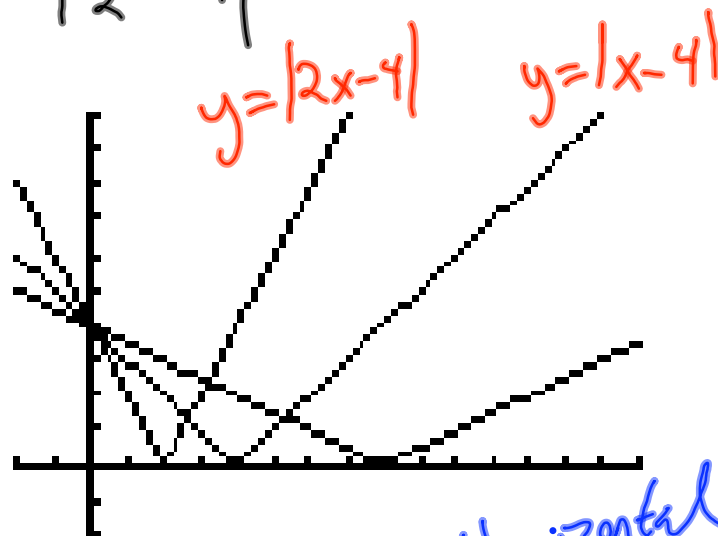
Plot1 Plot2 Plot3
Y1=abs(X-4)
Y2=abs(2X-4)
Y3=abs(.5X-4)
Y4=
Y5=
Y6=
Y7=

```

```

WINDOW
Xmin=-2
Xmax=15
Xscl=1
Ymin=-2
Ymax=10
Yscl=1
Xres=1

```



horizontal  
stretch around  
the y axis