## GeoGebra Function Tranformations Name:

- 1. Select the **Slider** button make 3 sliders named a, h, and k by clicking on three locations in the Graphics view (out of the way like the bottom right corner)
- 2. Type several or all of the **Arrow Icon** on left (Move Tool) and type the following functions in the **Input** box
  - (a) f1:a\*(x-h)+k
  - (b) f2:a\*(x-h)^2+k
  - (c) f3:a\*(x-h)^(1 / 2)+k
  - (d) f4:a\*(x-h)^3+k
  - (e) f5:a\*(x-h)^(1/3)+k
  - (f) f6:a\*floor(x-h)+k
  - (g) f7:a\*abs(x-h)+k

On the iPad you don't need the  $\ast$  to multiply, and instead of the  $\hat{}~$  you can use the  $a^x$  button.

- 3. You can turn the graph on and off with the dots, and manipulate the a,h and k sliders to see the transformations.
- 4. You make wish use the **Move Graphics View** tool on the far right in order to move around the graph or pinch/grow to change the scale, but remember to go back the **Arrow** on the left to be able to work the sliders again.