Chapter 2.6.1 Families of Functions Activity

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_

Describe the relationship between the two graphs. Then, with the equations of the functions graphed, comment on how the equations differ. Is there a connection between the way the equation differs and the way the graphs are related?

How are these two graphs related?

What is the equation of the red line?

What is the equation of the blue line?

How do these equations differ?

Does this relate to the way the graphs of the lines differ?

How are these two graphs related?

What is the equation of the red line?

What is the equation of the blue line?

How do these equations differ?

Does this relate to the way the graphs of the lines differ?

Here, the red line has an equation of $y=x^{2}$and the blue line has an equation of $y=\left(x+5\right)^{2}$

How are these two graphs related?

How do these equations differ?

Does this relate to the way the graphs of the lines differ?



Here, the red line has an equation of $y=|x|$ and the blue line has an equation of $y=\left|x\right|-7$

How are these two graphs related?

How do these equations differ?

Does this relate to the way the graphs of the lines differ?