

- Open the file “rationalslider”.

Rational Functions: $f(x) = k + \frac{a}{x+h}$

- Use the slider on page 1.2 to answer the following questions. Begin with the values of the reciprocal parent function ($a = 1, h = 0, k = 0$). Click the up/down arrows to change the value of each variable. Make sure to try negative values!

a) How does changing the value of the “ h ” variable transform the graph in relation to the reciprocal function?

b) How does changing the value of the “ k ” variable transform the graph in relation to the reciprocal function?

c) How does changing the value of the “ a ” variable transform the graph in relation to the reciprocal function?

- Write an equation for each rational function on pages 3.1-3.7. Test your equation by graphing it. If your equation is correct, it will overlap the original graph! Record the correct equations below.

1.

2.

3.

4.

5.

6.

7.