

## EXPLORING RATIONAL FUNCTIONS

Go to [geogebra.org/m/d9yvwzkr](https://www.geogebra.org/m/d9yvwzkr) to complete the GeoGebra activity. Adjust the sliders in GeoGebra using the values from the left column of the table below. Record your observations.

### Exploring Vertical Asymptotes

$m \& n = 1$	Observations
$b_0 < 0$	
$b_0 > 0$	

$m \& n = 2$	Observations
$b_0 < 0$	
$b_0 > 0$	

### Exploring Horizontal and Slant Asymptotes

$n = 1$	Observations
$m = 0$ or $1$	
$m = 2$	

$n = 2$	Observations
$m = 0$ or $2$	
$m = 1$ or $3$	

Let  $n = 1$  and  $m = 3$ . Zoom out and drag the graph to see above  $y = 100$ . What do you see?