

**Graphing Rational Equations: Let's Put It All Together!**

Use your previous notes to fill in the columns. Then sketch the graph. If you're having trouble, feel free to use a calculator/Desmos but **BE CAREFUL**, these graphs will not reveal the discontinuities of the graph!

Rational Function	Points of Discontinuity	Holes -Where do factors Cancel	Vertical Asymptotes -Where do factors Cancel	Horizontal Asymptotes (B-O-S-T-O-N)	Sketch the graph
$f(x) = \frac{x + 3}{(x - 2)(x + 3)}$	$x \neq$ _____				
$f(x) = \frac{2x^2 + 4x}{x + 2}$	$x \neq$ _____				
$f(x) = \frac{2x}{x + 5}$	$x \neq$ _____				
$f(x) = \frac{x}{x - 3}$	$x \neq$ _____				
$f(x) = \frac{x^2 - 3x - 28}{x + 4}$	$x \neq$ _____				
$f(x) = \frac{(x - 2)(x + 1)}{x(x - 5)(x + 1)}$	$x \neq$ _____				

