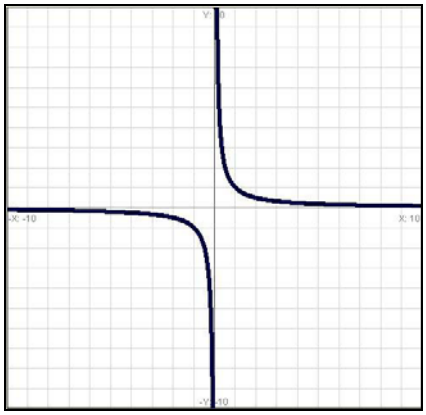
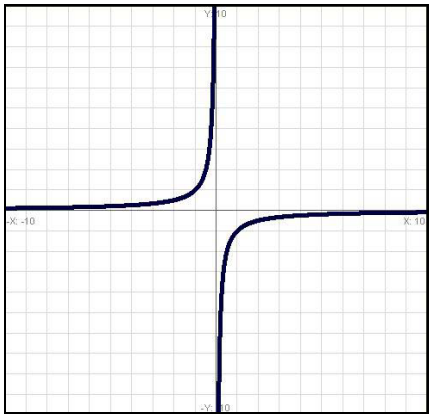
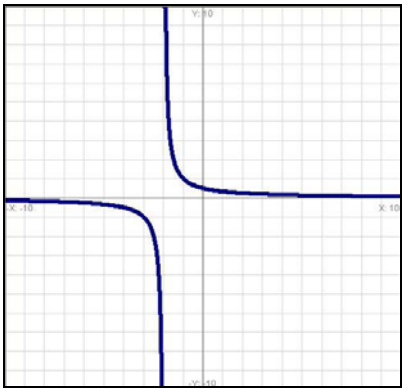
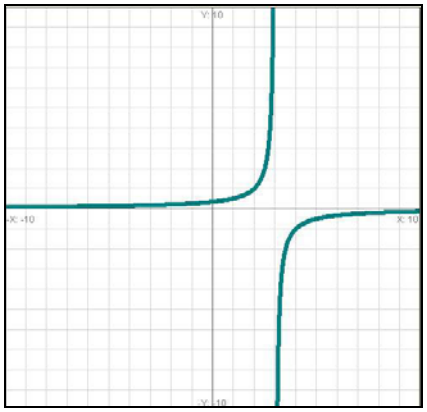
A Selection of Reciprocal Functions

Discussion of Reciprocal Functions & **Practice Graphing Reciprocal Functions**

@ Review discussion of Reciprocal Function & Investigate Characteristics below! @
@ What can you conclude about characteristics from discussion and sample graphs? @

y or f(x) = 1/x * –10 < x&y < +10	Verify GC by Table!	y or f(x) = –1/(x) * –10 < x&y < +10
Note appearance of standard!		Note appearance of (-) standard!
Determine Asymptote! Y=∞		Determine Asymptote! Y=∞
	X Y 0 ∞ +1 +1 +5 +1/5 –1 –1 –5 –1/5 X Y 0 ∞ +1 –1 +5 –1/5 –1 +1 –5 +1/5	

f(x) = 1/(x+2) * –10<x&y<+10	Verify GC by Table!	f(x) = –1/(x–3) * –10<x&y<+10
How does (+) affect Graph?		How does (–) affect Graph?
Determine Asymptote! Y=∞		Determine Asymptote! Y=∞
	X Y –2 ∞ –1 +1 +3 +1/5 –3 –1 –7 –1/5 X Y +3 ∞ +2 +1 +8 –1/5 +4 –1 –2 +1/5	

What affect would a (±) number outside the ( ) have on the Graph?
The General Equation for Reciprocal Functions? y = (±A / Bx ± C) ± D
What if the numerator is something other than (1) or possibility a Polynomial?

Tom Love Malone College 2006/2007