

## W4 – 3.3 Quotient of Linear Functions

MHF4U

Jensen

1) State the equation of the vertical and horizontal asymptotes for each function.

a)  $p(x) = \frac{x}{x-6}$

b)  $q(x) = \frac{3x}{x+4}$

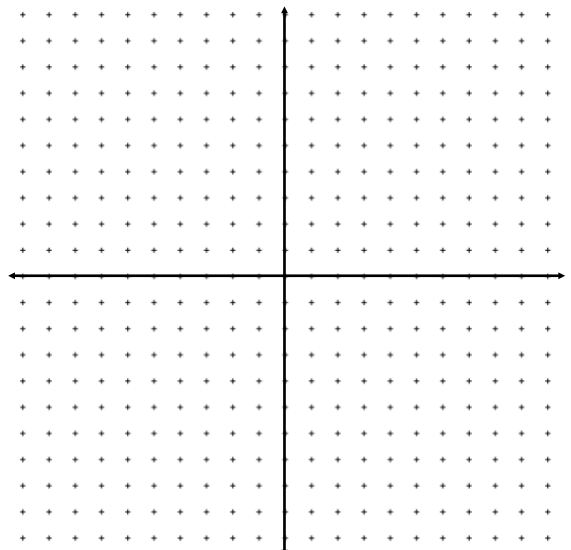
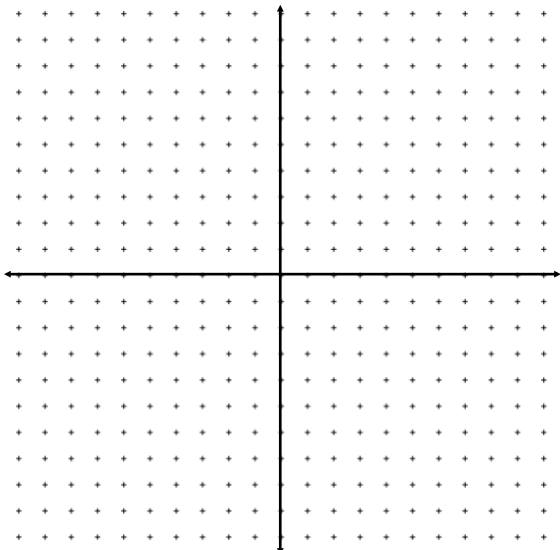
c)  $r(x) = \frac{x-1}{x+1}$

d)  $\frac{5x-2}{2x+3}$

2) Graph each of the following functions. Make sure to identify key characteristics of the functions including intercepts and asymptotes.

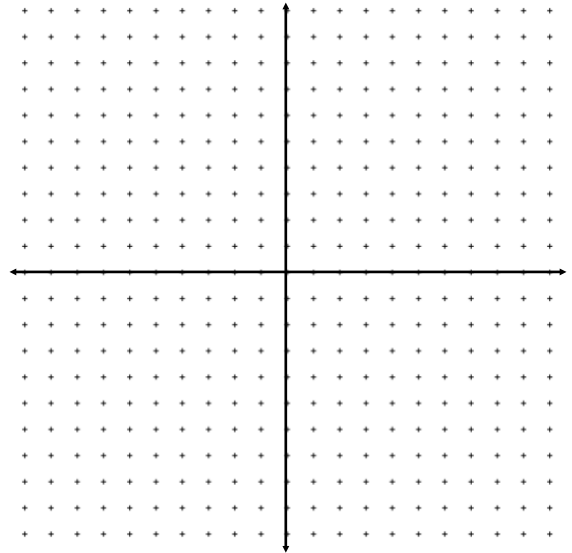
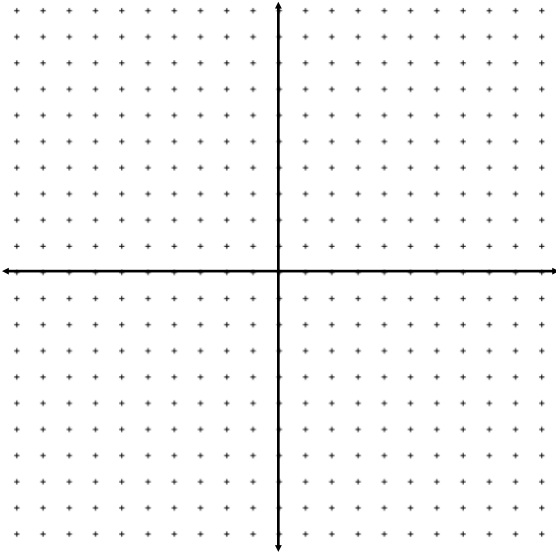
a)  $f(x) = \frac{x}{x-5}$

b)  $c(x) = \frac{4x}{x+8}$



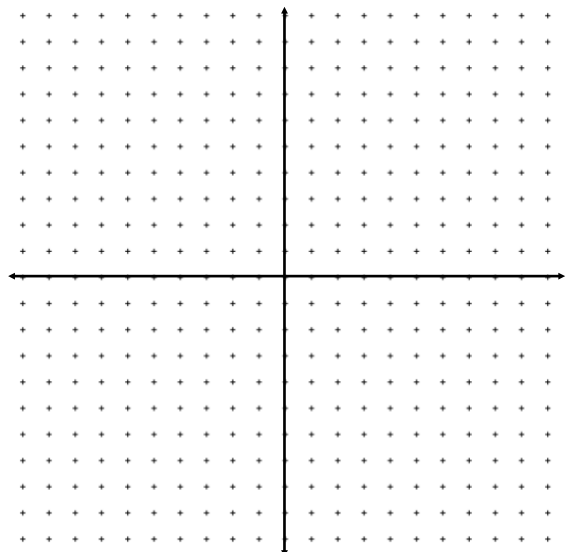
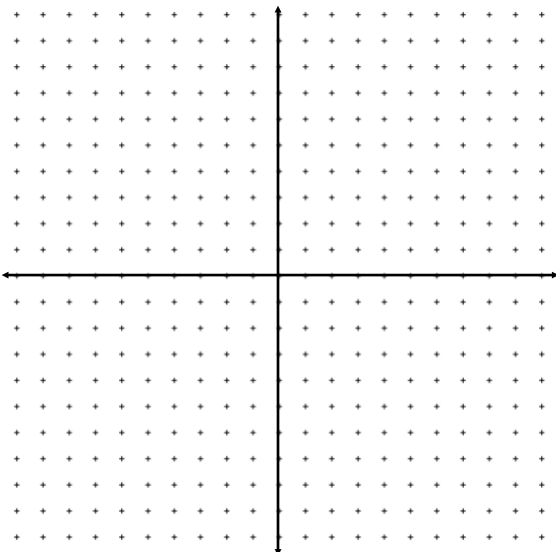
c)  $k(x) = \frac{x+1}{4-x}$

d)  $w(x) = \frac{x+2}{4x-5}$



e)  $d(x) = \frac{-2x-3}{x+5}$

f)  $m(x) = \frac{3x+1}{2x+1}$



**g)**  $g(x) = \frac{x-2}{x^2+3x+2}$

