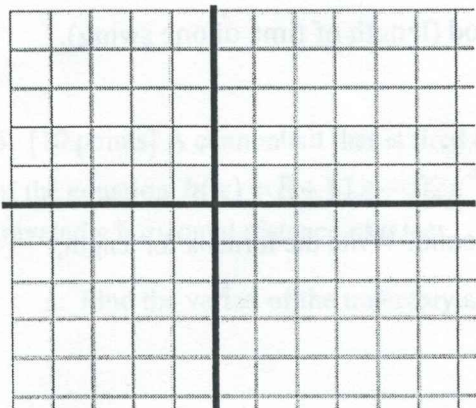


11. [4 points] Write the rational function in compound form and find the horizontal asymptote.

$$f(x) = \frac{5x+3}{5x^2+3}$$

12. [12 points] Sketch the graph of the function, $f(x) = \frac{3x+3}{x-2}$, by finding x -intercepts, the y -intercept, and horizontal and vertical asymptotes. Give the domain and range. Show work.



13. Psychologists have developed a mathematical model to predict memory performance as a function of the number of trials, n , of a certain task. Consider the learning curve $P = \frac{0.6 + 0.95(n-1)}{1 + 0.95(n-1)}$ where P is the fraction of correct responses after n trials.

a. [6 points] What is the horizontal asymptote for this equation? _____ What does it tell you about the performance of the task?

b. [4 points] What is the vertical asymptote for this equation? _____ What does it tell you about the performance of the task?