A. Can the graph of a rational function have both a horizontal and a vertical asymptote? Give an example to support your answer.

B. Can the graph of a rational function ever cross a vertical asymptote? Why or why not? How about crossing a horizontal asymptote? Why or why not?

C. The cost function for a product is given by     C(x) = 3x3 - 6x2 - 300x + 1800,    where x is the number of units produce and C is the cost in hundreds of dollars.  Use factoring by grouping to find the numbers of units that will give a total cost of $120,000.