$$F(x) = \frac{X^2 - 4X - 12}{X + 1}$$

Vertical asymptote(s):_____
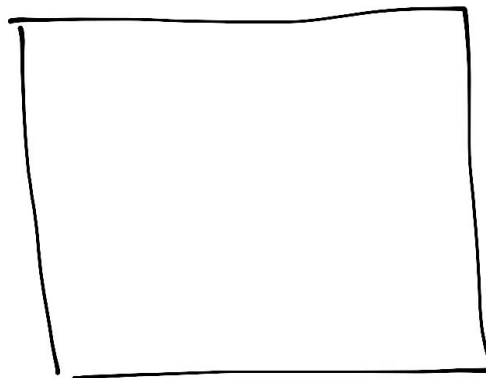
Holes:_____

X-intercept(s):_____

Y-intercept:_____

Horiz. asymptote:_____

Slant asymptote:_____

XMin :_____

XMax:_____

Ymin:_____

YMax:_____

The costs per fine ounce of platinum are approximated by the following equation:

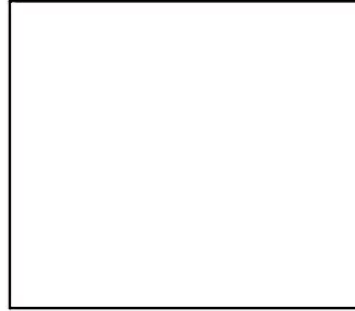Cost of platinum =

where t = 4 corresponds to the year 2004.

a) Use your graphing utility to graph the model from 2004 to the present in the same viewing window. Graph and state the window used.

Xmin =

Xmax =

Ymin =

Ymax =

b) Calculate all asymptotes for the equation

Vertical =

Horizontal =

Slant =

c) Create a table using the models to estimate the costs of platinum for the given years: 2004, 2007, 2010, 2013

YEAR	2004	2007	2010	2013
COST				

d) Using the model did the cost of platinum increase, decrease or stay the same from 2011 to 2012?   _____

e) Is the model's value higher, lower, or the same as the actual value if the per fine ounce of platinum for 2010 was $ 354.76?   _____

f) Assuming the trends continue, using the model find the cost of platinum for the years 2015 and 2020.   _____

Practice Problems

Now it is your turn to try a few practice problems on your own. Work on each of the problems below and then click on the link at the end to check your answers.

Problem 1: If you deposit $4500 at 5% annual interest compounded quarterly, how much money will be in the account after 10 years?

Problem 2: If you deposit $4000 into an account paying 9% annual interest compounded monthly, how long until there is $10000 in the account?

Problem 3: If you deposit $2500 into an account paying 11% annual interest compounded quarterly, how long until there is $4500 in the account?

Problem 4: How much money would you need to deposit today at 5% annual interest compounded monthly to have $20000 in the account after 9 years?

Problem 5: If you deposit $6000 into an account paying 6.5% annual interest compounded quarterly, how long until there is $12600 in the account?

Problem 6: If you deposit $5000 into an account paying 8.25% annual interest compounded semiannually, how long until there is $9350 in the account?