## Assignment \#5 / Term 2

## Secondary 3 Honors

## Precalculus Book:

Pg. 161-164 9, 11, 15, 22, 24, 26, 31, 83

## Carnegie Book:

Pg. 570-571 \#1 Match the equations to the graphs without using your graphing calculator. (Reduce each function, if possible, then look for holes and asymptotes.) You do not need to do parts a, b, c, d.

Pg. 574 \#5 a, c, d, e
Additional problem: Complete this problem on a separate sheet of paper.

1. Find the domain and reduce the function. List the holes, asymptotes and intercepts. Include odd/even for vertical asymptotes and x intercepts (or holes on the x axis). Use the information to draw the graph. Graphing the function with your calculator will not help. ©

$$
f(x)=\frac{x(3 x+1)(x-2)(x+4)^{2}}{x^{2}(x-2)^{2}(x+4)(x-3)^{2}}
$$

## ACT Review:

1. For 2 consecutive integers, the result of adding the smaller integer and triple the larger integer is 79 . What are the 2 integers?
A. 18,19
B. 19,20
C. 20,21
D. 26,27
E. 39,40
2. A function $f(x)$ is defined as $f(x)=-8 x^{2}$. What is $f(-3)$ ?
F. -72
G. $\quad 72$
H. 192
J. -576
K. 576
3. If $3^{x}=54$, then which of the following must be true?
A. $1<x<2$
B. $2<x<3$
C. $3<x<4$
D. $4<x<5$
E. $5<x$
