

For more programs **GO to Jim & Jane's** last session of the day
at **2:40 Terrace Rooms 3&4**

- **NCTM Regional Conference, Chicago, IL, Sept 20-22, 2006**

WINDS OF CHANGE

<http://www.nctm.org/meetings/chicago>

This will have a CAS focus.

<http://cs3.covenantchristian.org/bird>




Dir=font-blue-text-constants swf

Special thanks to Jim Haskins for his inspiration
and John Elliott for initially writing the TI program
for ANTS and Slalom (now called AANTS, AANTS2,
AASL, SLALOM)



Next - green swf

To Disable all
Programs on OS 2.41
Press  at the same time.
T1-84

9:45-11:15

<http://cs3.covenantchristian.org/bird> Tues, June 13,
2006

Overview - History & thanks

Handout & distribute programs need for this 90 min session

ANTS (≈ 30 +min) [song\(?\)](#)

Slalom (≈ 20 min)

ACTSAT (≈ 20 min)

Time permitting

more - my favorite apps

Timer

StudyCrd

EasyData, CBL/CBR, SciTools, Noteflio

- new apps

TestGrd2 (secret app)

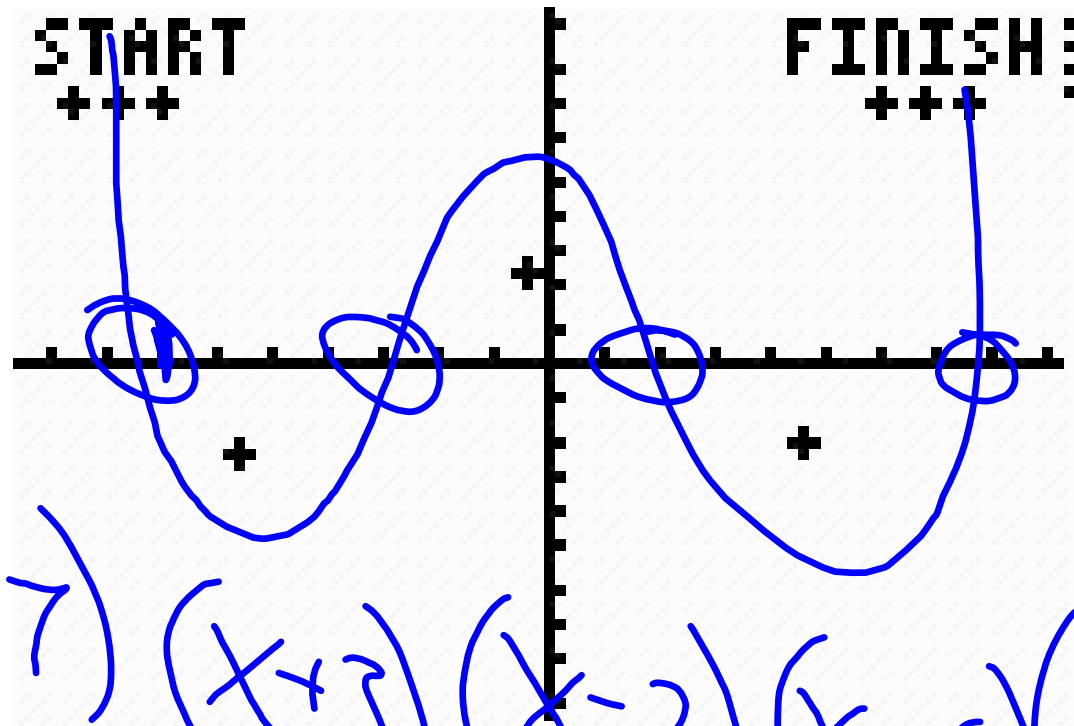
SmartPad

CabriJr

(I wish geometry teachers at my school used this)

2.41

Zeros & y-int



$$y = (x+7)(x+3)(x-2)(x-6)\left(\frac{1}{40}\right)$$

Name _____

Date _____ per _____

ANTS

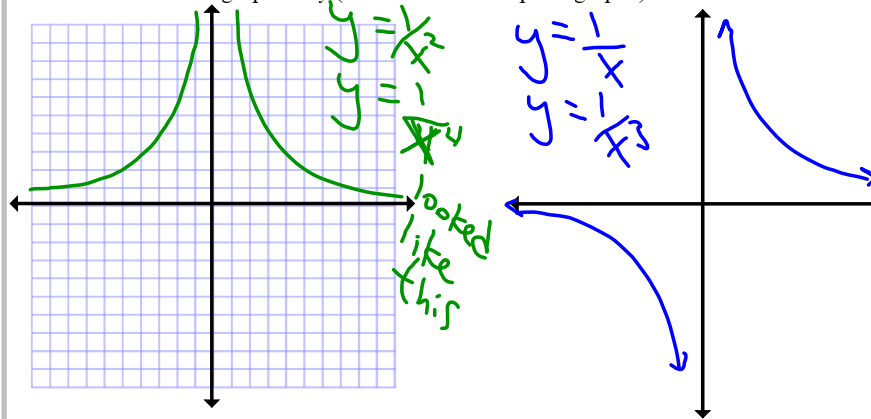
Algebra II – Calc

Objective: Practice translations with asymptotes.

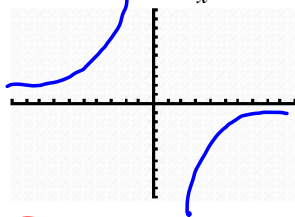
Instructions: Show work.

1. Graph on your TI-84 (or 83) $y = \frac{1}{x}$, $\frac{1}{x^2}$, $\frac{1}{x^3}$, $\frac{1}{x^4}$. Describe observations verbally.

Now describe them graphically (& use words to explain graphs)



2. Predict what $y = \frac{1}{x}$ will look like.



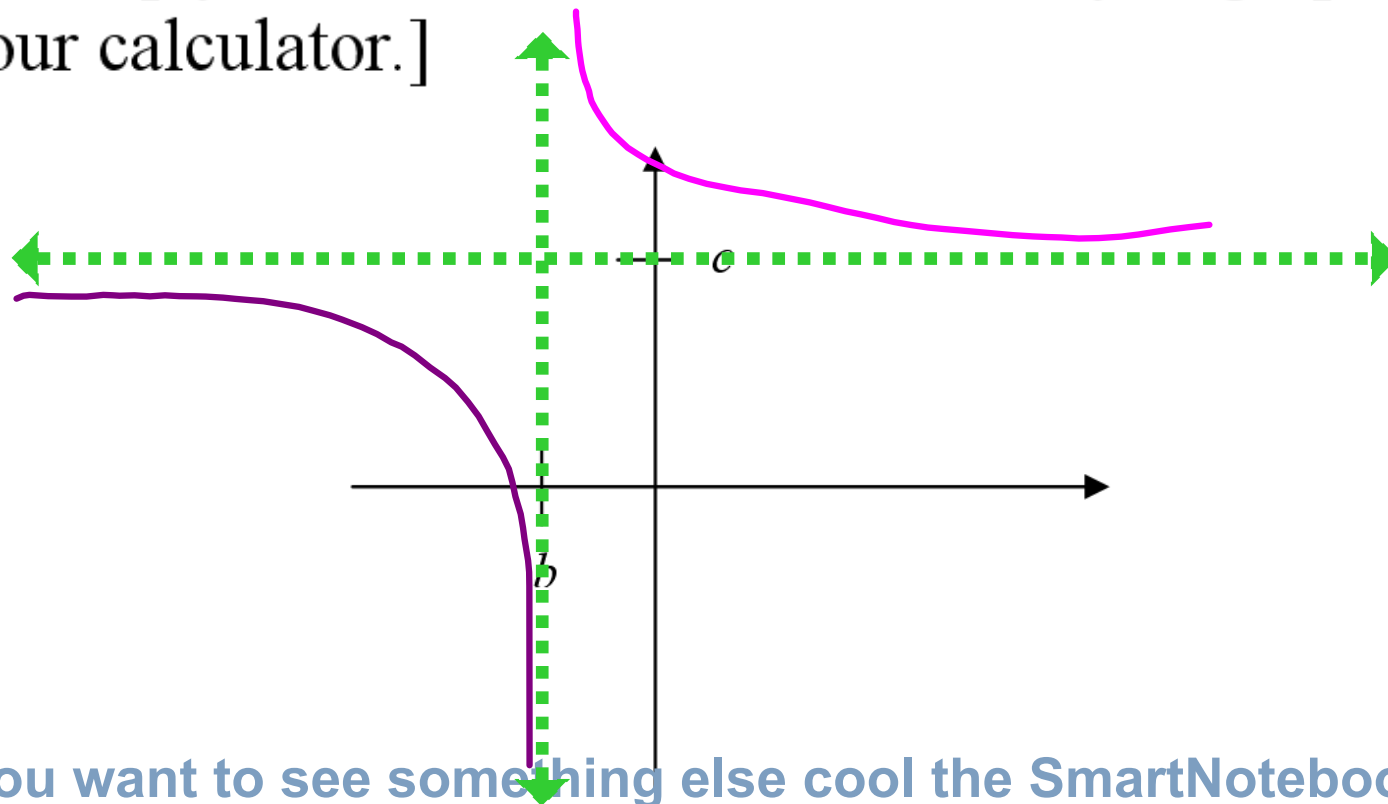
Now graph it. Were you correct? _____ Fix it if you were not

③

④ Do #4 before you turn the page.

5. Graph $y = \frac{1}{(x+b)} + c$.

[Do you know why I put the denominator in parenthesis?
It will help you not make a mistake when you graph it
on your calculator.]

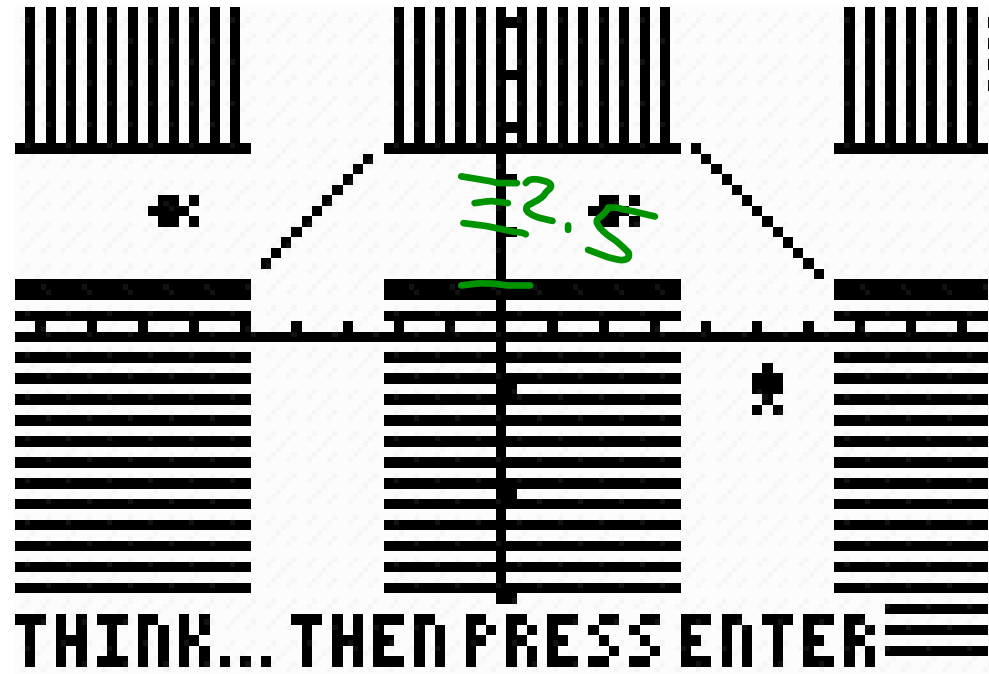


Do you want to see something else cool the SmartNotebook software can do now?

Now on to ANTS

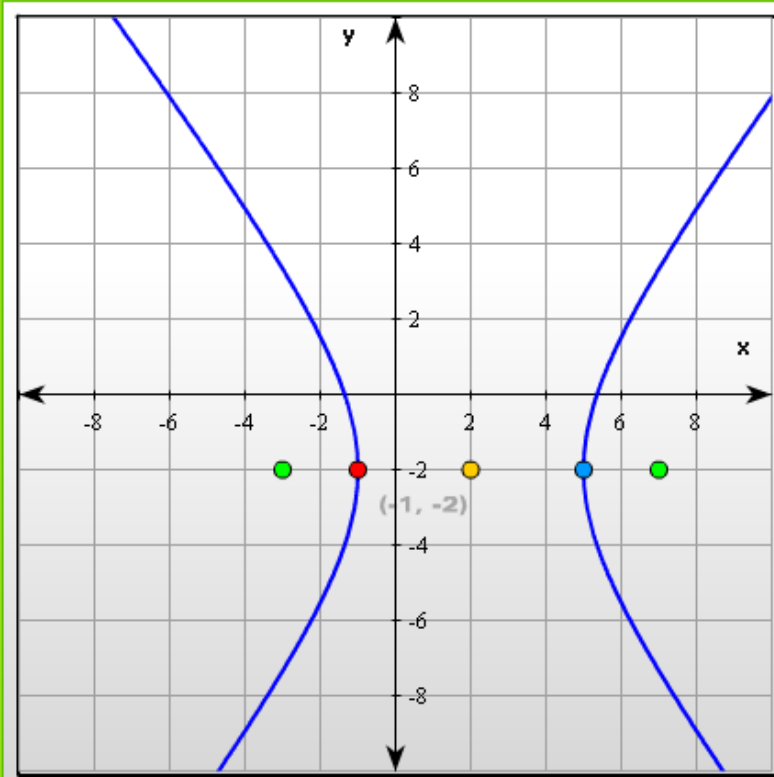
Ant Notebook with SmartView





Hyperbola

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



a

b

h

k

Show Asymptotes

Show string property

SMART
Technologies

SHyperbola.swf

SONGS FOR CALCULUS (most comprehensive list of calc songs available at <http://cs3.covenantchristian.org/bird/Calculus.htm>)

1. Holes, zeros & vertical asymptotes 🌐

Tune: "Yankee Doodle Dandy"

If you're looking for a zero
Hole or just an asymptote
Factor upstairs and the downstairs too
These are the rules you should quote

If you locate any factor
Top and bottom must agree
Then you know you've found a hole or
you can even call it
Remov'ble discontinuity

If a factor makes it nada
Only in the part up high
Then the function has a zero so
An x-intercept you will spy

If a number makes it zero
Only underneath the bar
Let x equal that same number which is
just your V.A.
Now you're an algebraic star!

2. Discontinuities

(Tune: "Three Blind Mice")
Jumps in graphs, jumps in graphs
Empty holes, empty holes
A vertical asymptote might appear
If the pencil's picked up it is mighty clear
Whenever that happens I tell you dear
The function's not continuous

4. Horizontal asymptotes

Tune: "Do Re Mi"

Horizontal asymptotes
Not as tough as you might think
Look to right, then look to left
Don't forget the missing link
Y approaching value k
Facts you'll need to know in May
Keep this concept in your mind
And the H.A.'s you will find!