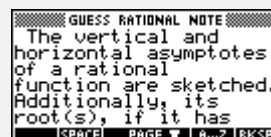


### Objectives:

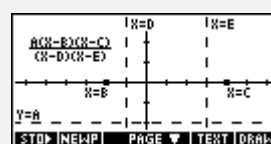
Using the **GUESS RATIONAL** applet, the student will write the equation of a rational function given horizontal and vertical asymptotes and a root.

### Functionality:

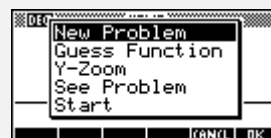
When the student presses **START**, the **GUESS RATIONAL NOTE** will be displayed.



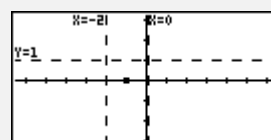
After reading the note, the student should press **SKETCH** for further explanation.



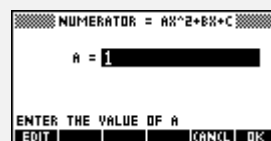
**IEWS** allows the student to select a new problem, enter the rational function, vertically zoom to see a complete graph, or view the problem.



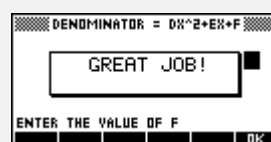
**New Problem** displays a graph with horizontal and vertical asymptotes and a root for the student to write the rational function that has these characteristics.



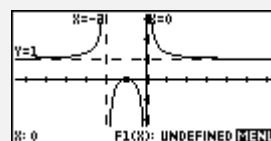
**Guess Function** prompts the user to enter the coefficients & constants of the numerator & denominator of the function.



After entering the rational function, a message box will display the status of the entered information. **GREAT JOB!** indicates the function is correct. **NUMERATOR IS CORRECT**, **DENOMINATOR IS CORRECT**, or **NEITHER IS CORRECT** could also be displayed

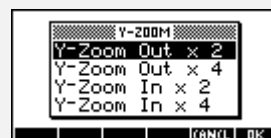


After the message box, the graph of the student's rational function will be plotted on the original problem for comparison purposes.

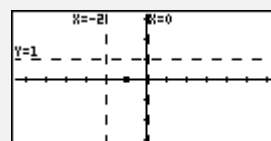


In the event that a complete graph is not seen,

**Y-Zoom** allows the student to vertically zoom in or out by a factor of 2 or 4.



**See Problem** allows the student to view the problem again if needed.



Programs associated with this applet:

.GRAT.GR, .GRAT.NP, .GRAT.GA, .GRAT.YZ, .GRAT.SP, .GRAT.ST, .GRAT.SV