

Advanced Math

GC-1

Calculate with Graphs

Open the TI Smartview Calculator.

Students, get out your graphing calculators.

Explore!

Graph: $y = \frac{(2x^2 - 1)}{(x^2 - 4)}$

Remember, the fraction bar is a grouping symbol, so the calculator needs to have the parentheses to know where to start and stop the numerator and denominator of the fraction bar.

From the calculator, make a pencil drawing of the graph:

Plot the points from the table!

() / ()

Screen Shot from Calculator (Table)

X	Y1
-5	2.3333
-4	2.5833
-3	3.4
-2	ERROR
-1	-3.333
0	-.25
1	-3.333
2	ERROR
3	3.4
4	2.5833
5	2.333

X = -5

Graph: $y = \frac{2x^2 - 1}{x^2 - 4}$

Please watch the video to see the calculator steps for each.

Use the calculator to find each of the following:

- Domain: $(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$ *except {±2}*
- Range: $(-\infty, \frac{1}{4}) \cup (2, \infty)$ *Save for last*
- Zeros: $\{-.7071, .7071\}$
- y - intercepts: $(0, \frac{1}{4})$
- Relative Maximums: $(0, \frac{1}{4})$
- Relative Minimums: none
- Increasing Intervals: $(-2, 0) \cup (2, 0)$
- Decreasing Intervals: $(0, 2) \cup (2, \infty)$

Bueller..

Assignment:
GC - 1 Handout
1-8 all