

SAT SESSION #5

Calculator Portion Released Test #24:

zeros
x-int
Solutions

The polynomial $p^4 + 4p^3 + 3p^2 - 4p - 4$ can be written as $(p^2 - 1)(p + 2)^2$. What are all of the roots of the polynomial?

- A. -2 and 1
- B. -2, 1, and 4
- C. -2, -1, and 1
- D. -1, 1, and 2

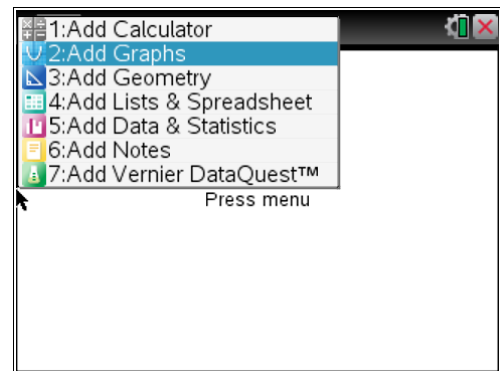
$$p^2 - 1 = 0 \quad (p+2)^2 = 0$$

$$\begin{matrix} +1 & +1 \\ \hline p^2 & = 1 \end{matrix}$$

$$-2$$

2 calculator methods: polynomial tools
(menu 3,3)

Or graph it



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- C. -2, -1, and 1
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Press the Home Key

Select 1: New Document

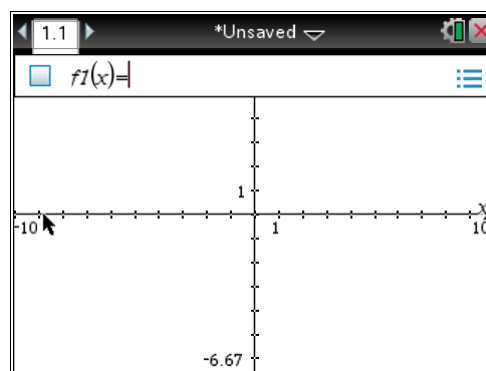


Press Enter.

If this screen appears asking if you want to save, select no.

Press Enter.

Choose 2: Add Graphs

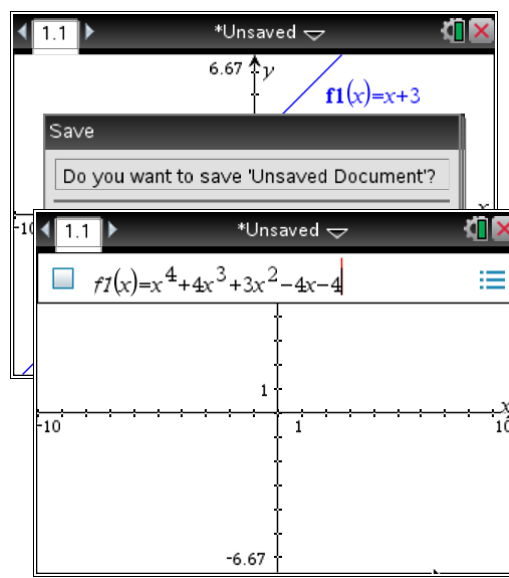


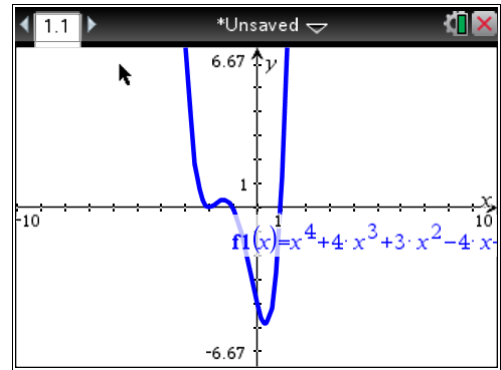
Press Enter.

To type in the function, use x's instead of p's.

When I type in x, carat,4, I must also press the right arrow key to get the cursor out of the exponent line.

Continue typing in the function. Any time you type an exponent into the calculator, you must press the right arrow to get the cursor back down.





Press Enter.

Where is the function crossing the x-axis?

At -2, -1 and 1.

Therefore, answer choice C is correct.