

SAT RELEASED TEST ADMINISTERED ON APRIL 10, 2018

CLASSROOM SAT SESSION #2

Calculator Portion Released Test:

5.)  $2x(x^2 + 1) + (2x^2 - 2x)$

Which of the following expressions is equivalent to the expression above?

A.  $4x^2$

B.  $2x^2 + 2x$

C.  $2x^3 + 2x^2$

D.  $2x^3 + 2x^2 - 4x$

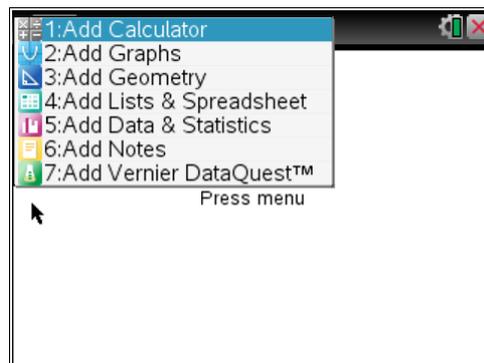
Press the Home Key

Select 1: New Document



Press Enter

Select 1: Add Calculator



Press Enter



Since we are given an expression,  $2x(x^2 + 1) + (2x^2 - 2x)$ , then  $x$  can be any value. We want to find the expression that is equivalent to this expression. I would like you to choose your favorite one digit number. Then we are going to store that value as  $x$ .

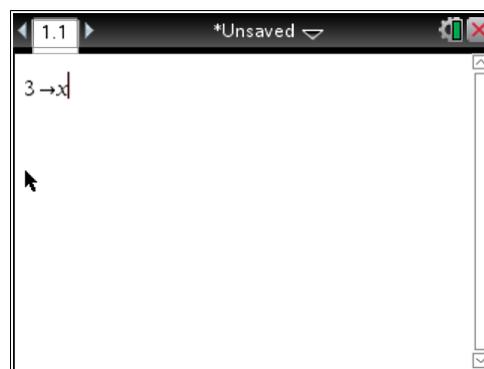
I am going to choose the number 3.

Press the number 3

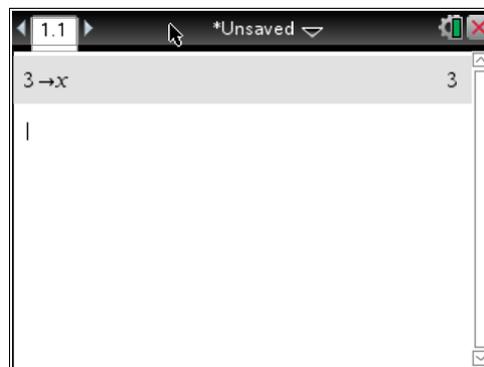
Press the CTRL Key

Press the VAR key that is above the number 9

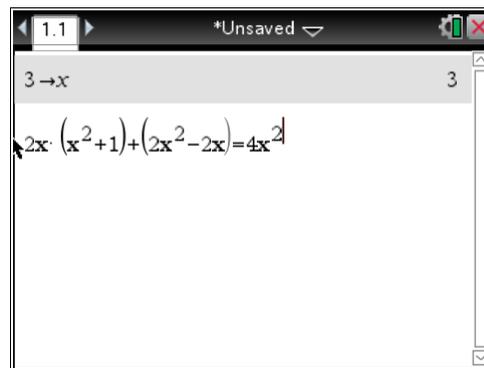
Press the letter  $x$



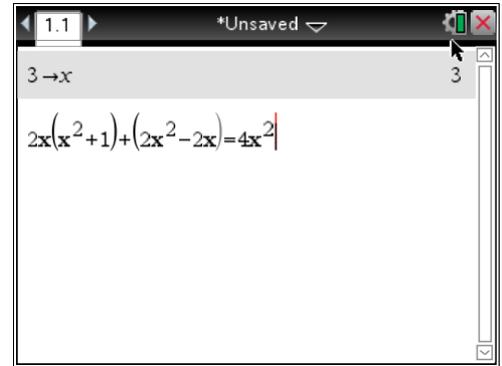
Press Enter



We are going to Boolean check for the correct answer choice. When we Boolean check, the TI Nspire gives as a true or a false. Now type the original expression on the screen as written. Make sure to type a multiplication symbol between  $2x$  and the first parentheses.

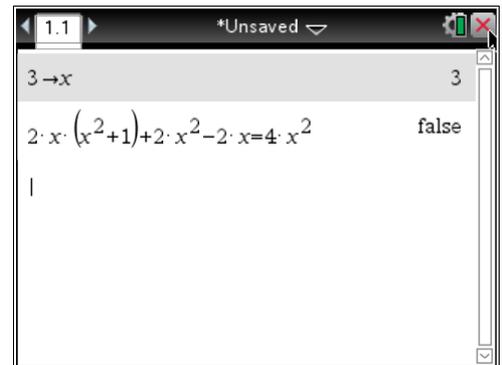


Type in the equals sign. Type in the expression from answer choice A. Make sure your typed expression looks like what was in the problem.



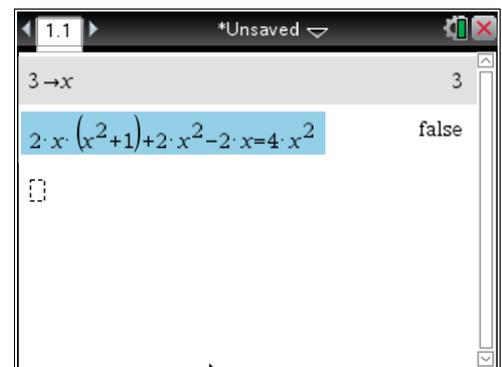
Press Enter

We received a false, so answer choice A is incorrect.

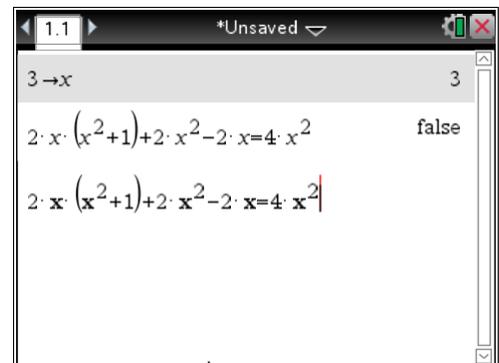


Press the up arrow so we can copy and paste the expression. When you highlight the expression, that is considered copying it.

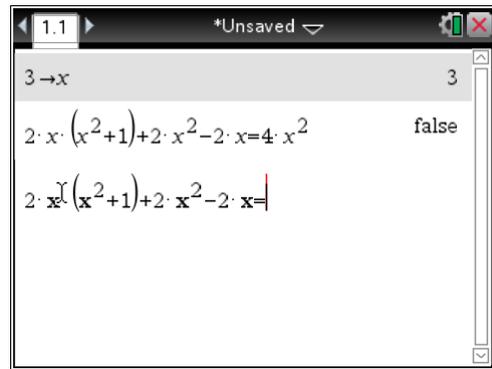
Press the up arrow until the entire expression is highlighted.



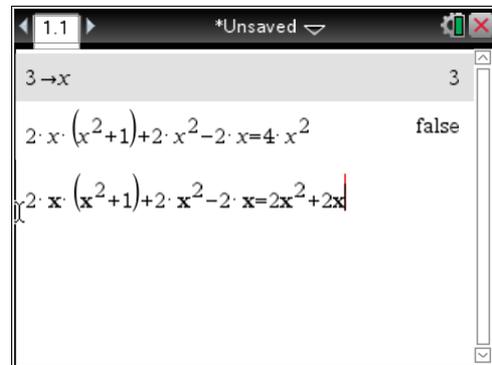
Press Enter to paste.



Use the delete key to get rid of answer choice A.

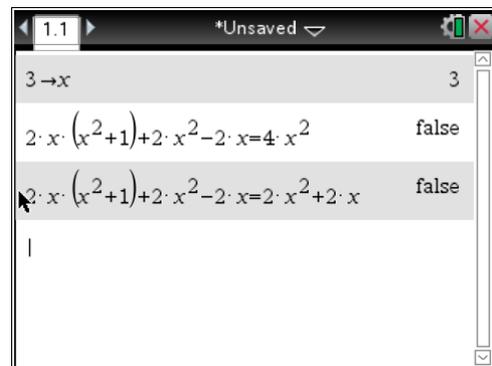


Now type in answer choice B. Make sure your typed expression looks like what was in the problem.



Press Enter

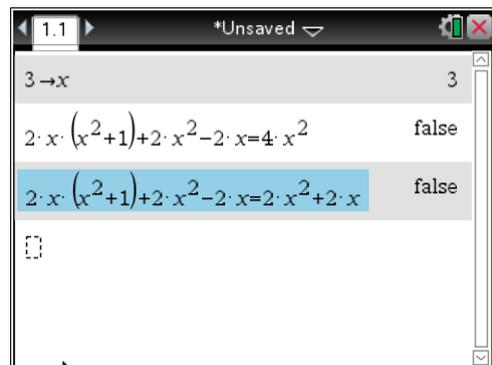
We received a false again, so answer choice B is incorrect.



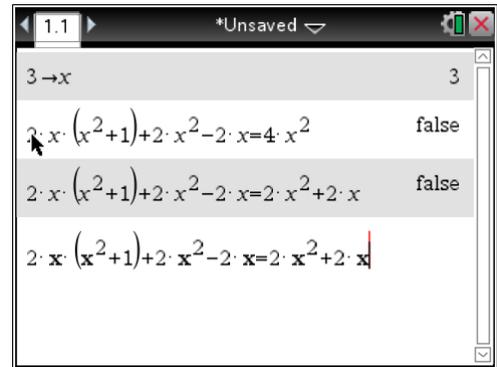
Press the up arrow so we can copy and paste the expression.

When you highlight the expression, that is considered copying it.

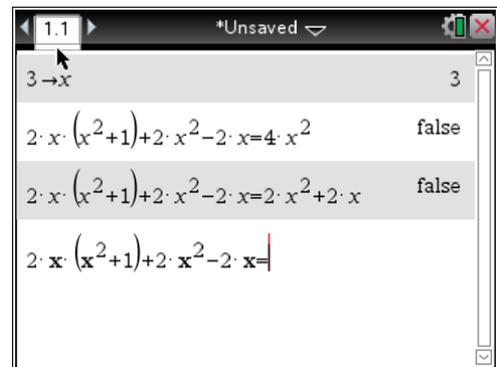
Press the up arrow until the entire expression is highlighted.



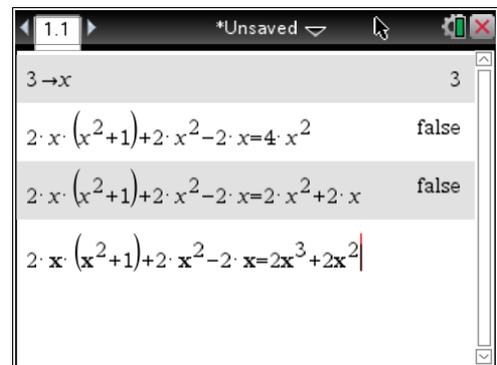
Press Enter



Use the delete key to get rid of answer choice B.

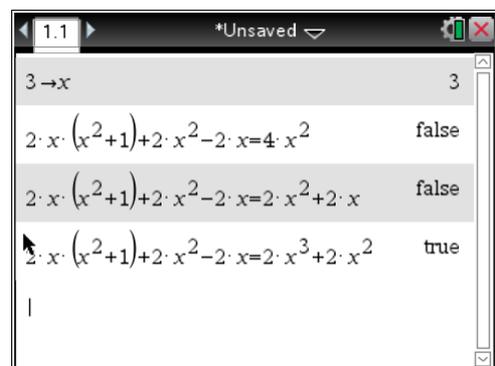


Type in answer choice C. Make sure your typed expression looks like what was in the problem.



Press Enter

This time when we Boolean checked, we received a true.  
This means that answer choice C is the correct answer.



#1 From Released Test #6

1

Which expression is equivalent to  $(2x^2 - 4) - (-3x^2 + 2x - 7)$  ?

- A)  $5x^2 - 2x + 3$
- B)  $5x^2 + 2x - 3$
- C)  $-x^2 - 2x - 11$
- D)  $-x^2 + 2x - 11$

#8 From Released Test #5

8

Which of the following is an equivalent form of  $(1.5x - 2.4)^2 - (5.2x^2 - 6.4)$  ?

- A)  $-2.2x^2 + 1.6$
- B)  $-2.2x^2 + 11.2$
- C)  $-2.95x^2 - 7.2x + 12.16$
- D)  $-2.95x^2 - 7.2x + 0.64$

## TI Nspire Steps

- 1.) Classroom Session #1 uses question 6 on the calculator portion of the SAT test given on April 10, 2018

**TI Nspire Calculator Skill:** "Solving Linear Systems" on the TI Nspire

- 2.) Classroom Session #2 uses question 5 on the calculator portion of the SAT test given on April 10, 2018

**TI Nspire Calculator Skill:** Boolean Checking on the TI Nspire