Scavenger Hunt – TI-Nspire CAS™ Touchpad

AP CALCULUS: GETTING TO KNOW THE CALCULATOR PAGE

Activity Overview

Name _____________________ Period ___

- In this activity, you will create and investigate the features of a calculator page.

Getting to Know the TI-Nspire™ Touchpad

1. Where are the letters? What do you notice about them? _______________________
   _________________________________________________________ Do you know why they are like that? __ yes __no

2. Which key is located under the ~ key? __________

3. Which key do you think you push to access the yellow functions on the keypad? __________

4. The Touchpad is used to navigate the cursor around the screen.
   What body part appears above the CLICK in the middle of the Touchpad? __________

5. Press (on) to turn on the handheld. To adjust the contrast, hold down the (ctrl) and press + or - keys repeatedly to lighten or darken the screen.

Starting to Navigate the Handheld

6. Press (on) to enter the Home Screen.
   a. How many options are there to select from on the screen? _________________
   b. Which options might you select to graph a line? ___________________________
   c. Which options remind you of some computer functions? _______________________

7. Press (ctrl)1 to create a new document. If prompted to save the current document, (tab) to [NO] and press click ( or (enter). Press 1 to start the new document with a calculator. A blank page appears on the screen and a tab labeled 1.1 appears in the top-left corner of the screen. What appears in the lower-right corner of the screen? _____________________

8. Perform the following calculations.
   a. Type 1/2+1/3 and press (enter). What do you notice? _______________________
   b. Press (ctrl) (enter). What do you notice? _________________________________
   c. Press (ctrl) + 3 and press (ctrl) (enter). What do you notice? _______________
   d. Type (4–3(2–4)3–7)2 and press (enter). Notice the faded images of the closing parentheses. What was the result? ____________

9. What do you think the 4/99 in the bottom-right corner of the screen means? ___________

10. The handheld is designed to mimic the operation of computers and computer software. Many of the traditional shortcut keys used with computer software are available on a TI-Nspire handheld. The handiest ones, (ctrl) Z (or (esc), see the icon above it ‘⁻’) and (ctrl) Y, are used to “undo” and “redo” actions.
11. Use  to perform the following calculations. Ask your neighbor (and then your teacher) if they know a shortcut about using the history to do letter d once c is done.

a. \( \frac{1}{\sqrt{2}} \)  

b. \( \frac{3}{4} + \frac{5}{7} + 3 \)  

c. \( \frac{-5 + \sqrt{5^2 - 4(6)(-4)}}{2(6)} \)  

d. \( \frac{-5 - \sqrt{5^2 - 4(6)(-4)}}{2(6)} \)

12. Perform the following actions. Use , , or to access the necessary symbols.

a. Type \(-4 < -5\). What did you get? ________________

b. Press >algebra >solve. \( \sin(\theta) = 1/2, \theta 1 \) \( | -\pi < \theta < \pi \) What did you get? ________________

c. Type 100!

How many zeros are at the end of this? ____________________________

d. Type \( v = \frac{d}{t} \). Then press \( \times T \) (enter). What did you get? ____________________________

e. Now press \( \vee \) (enter). What did you get? ____________________________ This is CAS = Computer Algebra System – a great tool for exploring mathematics, checking your work, identifying patterns, remediation, and climbing the tree of mathematics.

f. Type \( \sqrt[3]{\frac{8}{125}} \). Could you find the icon to do the cube root above ? What did you get? ______

An important TI-Nspire key combinations to be remember and take away from this activity is  enter .

Again, what does this do? ____________________________