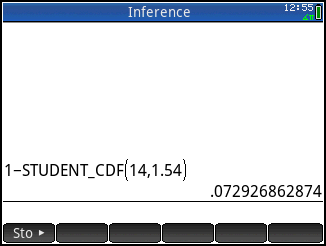


**TECHNOLOGY CORNER**

19. Computing P-values from t distributions on the HP Prime

You can use the STUDENT\_CDF command on the HP Prime to calculate areas under a t distribution curve. The syntax of the command is STUDENT\_CDF(*degrees of freedom, value*) and it calculates the area to the leftof the desired critical *value* of a t distribution with the given *degrees of freedom*. Let’s use the cumulative *t* command to find the P-values from the last two examples.

1. *Better batteries*: Find P(t ≥ 1.54). Since this problem involves the area to the right, we will use 1-STUDENT\_CDF(14, 1.54)
   * Press H to go to the Home view
   * Enter x w
   * Press D , tap *Probability*, then tap *Cumulative* and select *T*
   * Complete the command 1-STUDENT\_CDF(14, 1.54) and press E.



1. *Two-sided test*: Find P(t ≤ -3.17 or t ≥ 3.17). Since this is a two-sided test, we will double the lower-tail probability.
   * Enter the command 2\*STUDENT\_CDF(36, -3.17)

