Cardprob

By: Alex Glanville

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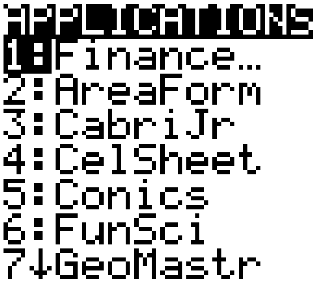
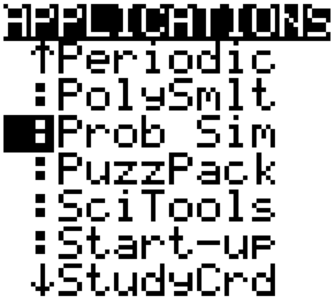
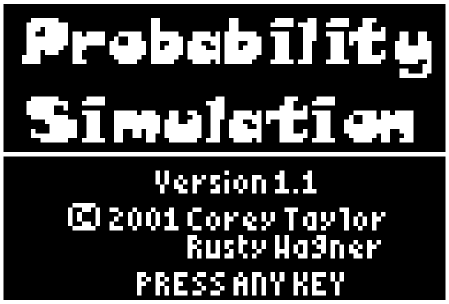
For the program CARDPROB, on the TI-84+ Silver Edition Calculator to run correctly you must have 3 lists in your RAM (unarchived) and the same length. The lists are: DRAW, SUIT, and VALUE. These lists are created by the application Prob Sim.

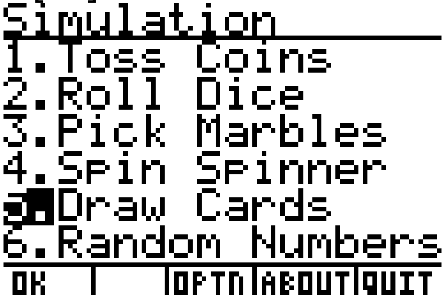
To get to the application that creates the 3 lists above follow these simple instructions. If you have these lists and you want new data follow the instructions, the APP will automaticaly delete and replace the lists:

1. Press the [APPS] key, on the calcultor, (only key with purple text) You should see a menu-like screen of applications.
    a. You should be shown something similar to this picture:
        i. 

2. Then press the [DOWN] arrow key, on the calculator, until you reach Prob Sim.
    a. You should be shown something similar to this picture:

   i. 

3. Press the [ENTER] key on the calculator.
4. You will be greeted by a black screen with white lettering. Double check with the picture below:
   i.  (Version may vary)

5. Press any key you desire and you will be taken to a similar ‘menu-like’ screen.
6. Go down to option ‘5.Draw Cards’ or simply press the [5] button on the calculator.
   i. 

7. Now press the Second option from the left (as if reading left to right) which would be the [WINDOW] button or press [ENTER], on the calculator, to draw cards.
   a. You might want to have the groups copy what cards you draw on the calculator and in what order. After a couple of cards ask the group to see if they can guess the next card with the information they have written down. After a few guess draw the next card and see if anyone was correct. Just for

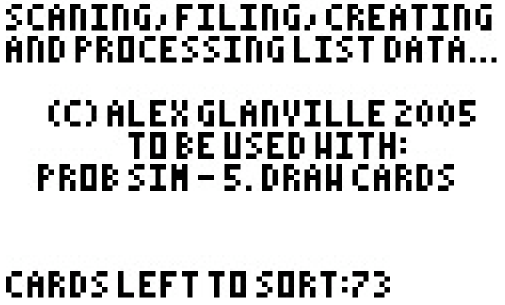
added knowledge on probability figure out what the probability would have been if it was the card one of the group members guessed.

   b. After a couple minutes of debate among the groups continue the lesson/exersize.

8. After you have drawn your last card select the 4th option from the left (as if reading left to right) which would be the [TRACE] button on the calculator. Then press the last option from the left which would be the [GRAPH] button on the calculator. This will save the list of cards you drew on the calculator into 3 Lists on the calculator.
9. After saving you will be taken back to the 'Draw Cards' screen. Select the first option to the left, which would be the [Y=] button on the calculator, to exit this Application Sub rogram. Then press the same button to select yes, You will be taken to the Menu-like screen in which you select the option '5.Draw Cards'.
10. Press [GRAPH] then [Y=] on the calculator to exit the application.

Now that you have the lists created, head to the program called CARDPROB to sort the data out. Follow the next steps to get to it's location and learn how to work it:

11. Now, press [PRGM] (immediately to the right of the [APPS] button) on the calculator and press [ENTER], or scroll down to the pogram CARDPROB if you have one or more other programs visible. This will run the program I made called CARDPROB.
12. CARDPROB will take the lists that Prob Sim outputed ($_L$DRAW, $_L$SUIT, and $_L$VALUE) and sort them into the calculators variables and lists[1].



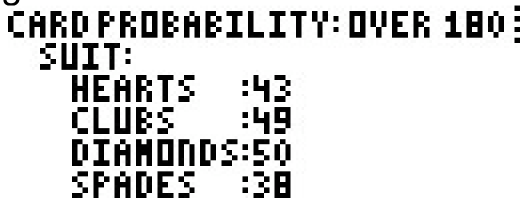
```
SCANING,FILING,CREATING
AND PROCESSING LIST DATA...

 (C) ALEX GLANVILLE 2005
     TO BE USED WITH:
 PROB SIM - 5.DRAW CARDS


CARDS LEFT TO SORT:73
```

i.

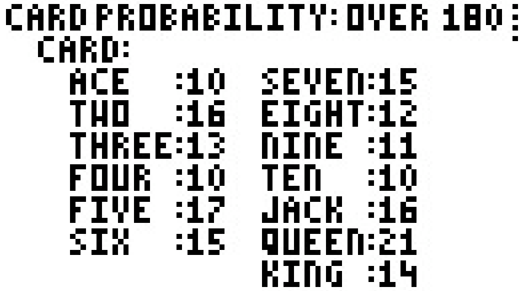
13. The time it takes to sort the lists will vary on how many cards you drew. That is why I included a counter after I thought my calculator froze.
14. After the program sorts though the lists it will take you to the draw screen and display the results. First come the Suits, how many of each suit you got.



```
CARD PROBABILITY:OVER 180⋮
 SUIT:
   HEARTS  :43
   CLUBS   :49
   DIAMONDS:50
   SPADES  :38
```

i.

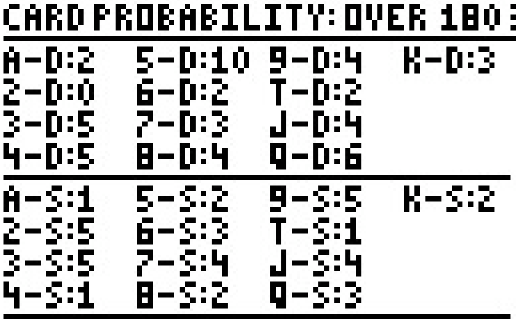
15. Then it will show you the Face Value.



```
CARD PROBABILITY:OVER 180⋮
 CARD:
   ACE  :10  SEVEN:15
   TWO  :16  EIGHT:12
   THREE:13  NINE :11
   FOUR :10  TEN  :10
   FIVE :17  JACK :16
   SIX  :15  QUEEN:21
             KING :14
```

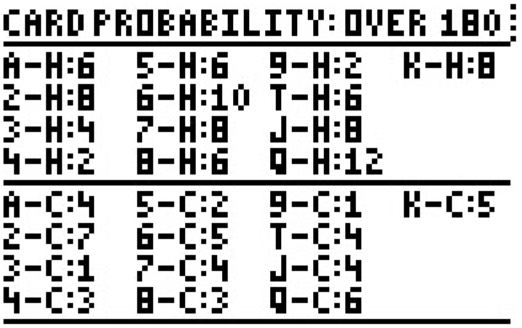
i.

16. Lastly it will show you How many of each card you got (spaning over two slides total)



```
CARD PROBABILITY:OVER 180
A-D:2  5-D:10 9-D:4  K-D:3
2-D:0  6-D:2  T-D:2
3-D:5  7-D:3  J-D:4
4-D:5  8-D:4  Q-D:6
A-S:1  5-S:2  9-S:5  K-S:2
2-S:5  6-S:3  T-S:1
3-S:5  7-S:4  J-S:4
4-S:1  8-S:2  Q-S:3
```

i.



```
CARD PROBABILITY:OVER 180
A-H:6  5-H:6  9-H:2  K-H:8
2-H:8  6-H:10 T-H:6
3-H:4  7-H:8  J-H:8
4-H:2  8-H:6  Q-H:12
A-C:4  5-C:2  9-C:1  K-C:5
2-C:7  6-C:5  T-C:4
3-C:1  7-C:4  J-C:4
4-C:3  8-C:3  Q-C:6
```

ii.

17. In the newest Version of CARDPROB, Version 2.0.1, I have added the ability to go back to previous slides. Before, you had to run the whole program again just to get back to a previous slide. Here is what you can press to advance, go back and quit.
    i. [UP], [LEFT], or [–] to go back (not available on the first slide)
    ii. [DOWN], [RIGHT], or [+] to advance (not available on last slide)
    iii. [CLEAR] to exit.
        ◎ (1) [CLEAR] will properly exit the program. It will delete any Lists it created. Calculator Variables (A-X) will not be restored nor deleted.

In future versions I wish to include the probability that the suit, value or card was picked. This is all I wish to add, making Version 2.5 the final version, more than likely.

To be directed to the newest versions of this program, head to **http://alex.glanville.info?go=6g9m&prog=card** (TI is capitalized). The link also contains links to my other programs.

If you have any suggestions,comments, or Questions please e-mail me at: **ajglanville@gmail.com**

Thank You! Hope you liked my assist program!

DISCLAIMER:

This program, nor I, is responsible for any damage caused. This program is coded in 100% TI-BASIC so no such error should ocurr. If an error does persist please contact me regarding the matter so I can get it fixed as soon as possible.

TERMS OF USE:

You are free to use this program for any means. Modifying is perfectly OK for school and work Purposes only. This program, modified or not, cannot be distributed without my consent and permission. To get permission please send an e-mail to the e-mail provided above. Please include the site URL (and directions to get to the file if nessasary) so I can check-up on the file regularly and add it my list.

MODIFYING:

It is OK to modify this program, as stated above, but ONLY FOR SCHOOL or WORK PURPOSES ONLY. Please send all Modified versions to the e-mail provided above.