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prb7a_1pair
Saturday, October 28, 2023
                10:04 PM
            Problem 8
      Given 4 cards with
       13 possible face values,
        calculate the probability of
           1 pair?
2 pair?
3 of a Kind?
           4 of a kind?
 sample size:
                 4 suits
            x 13 values per suit
   n Cards = 52 cards
                       -unique #'s
       23456789 DJQKA
            b possibities for one suit value.
          x 13 face values
           78 ways to get a pair of ony
Kind of face value
                                                   13 diff face values
                                                                                              - total num of 2's
  # of diff values
# unused!
                                                                                             = 4! *2's = 4521
2! 2! *2's = 12.12 = 24
                                                      13! = 13 ways to pick one
1!12! type of face vollue (and
                                                                                                6 ways to get one pair #2's
                  13
                                                          BHIX Part 2 = 13 x 6 = 78 ways to get
one pair
      nCr = 18 ways to get any type of pair
    Probability
                                                                   78 ways to got I pair of an type of ravd

x 13 diff face Value cavels
            p(E) = \frac{\# ways}{get a pair}
                                                                      1014 ways to get I pair
                            sample
                             Size
                                                            (5) total ways to get I pair from dack
              p(E) = 78 x 100
                                                                                            X 100 =
                                                        Sample size
       6 = 11.5%
52
                                                                     52! = $.067 x10
                        = 6497400 = 270,725
```