

EXAM P QUESTIONS OF THE WEEK

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Week of March 26/07

In the Texas Hold'em poker game, each person is dealt two cards before any betting begins.

For an ordinary deck of cards (spades, hearts, diamonds, clubs, 4 aces, 4 kings, etc), find the probability that a randomly chosen player has a pair in the first two cards received.

- A) .0188 B) .0288 C) .0388 D) .0488 E) .0588

The solution can be found below.

Week of March 26/07 - Solution

There are 6 possible pairs of aces (Spade-Heart, Spade-Diamond, Spade-Club, Heart-Diamond, Heart-Club, Diamond-Club, and there are 13 possible ranks (ace, king,...), for a total of 78 possible pairs in the first two cards. There are $\binom{52}{2} = \frac{52 \cdot 51}{2} = 1326$ possible two-card combinations that can be received in the first two cards. The probability of getting a pair in the first two cards is $\frac{78}{1326} = .0588$. Answer: E