

CMPSCI 240: Reasoning Under Uncertainty

Discussion 3

Name: _____ ID: _____
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Poker Hands: A deck of cards consists of 52 cards. Each card has one of four suits (clubs, diamonds, hearts, spades), and one of thirteen ranks (A, 2, 3, 4, 5, 6, 7, 8, 9, 10, J, Q, K). A poker hand consists of 5 cards.

One Pair: Two cards have the same rank; others have different ranks

Two Pairs: Two cards of one rank; two cards of another rank; and one card of a third rank

Three of a Kind: Three cards of one rank; others have different ranks

Straight: The five cards have consecutive ranks

Flush: The five cards have the same suit

Full House: A pair and three of a kind

Four of a Kind: Four cards have one rank; and card of second rank

Straight Flush: A straight that is also a flush

Answer the following questions and show your work for each one of them.

How many poker hands are there?:

How many hands are “four of a kind”?:

How many hands are “one pair”?:

How many hands are “two pairs”?:

How many hands are “three of a kind”?:

How many hands are “straight”?:

How many hands are “flush”?:

How many hands are “full house”?:

How many hands are “straight flush”?:

How many hands have no pair and are not flushes or straights?: