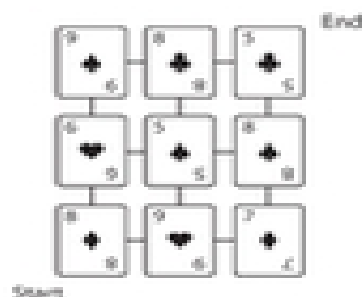


# Take A Walk

Suppose 9 cards are dealt as shown



For each problem, begin at start, stop at end. Retracing is not allowed.

- Follow the paths to collect 5 cards.
  - What is the highest total possible?
  - What is the lowest total possible?
  - Is there an answer that is unique?
- Follow the paths to collect 7 cards.
  - What is the highest total possible?
  - What is the lowest total possible?
  - Is there an answer that is unique?
- Suppose we change the operation to multiplication. What are the new answers for problems 1 and 2?
- Suppose the black cards are positive integers and the red cards are negative integers. What are the new answers for problems 1 and 2?
- How many different ways are there to walk from "start" to "end"?

## Variations

- Use the cards Five through Nine of any suit. Deal 9 cards in a square array as shown.
- Use the cards Ace through Nine or Ace through King of any suit.
- Use larger arrays,  $4 \times 4$ ,  $4 \times 5$  and  $5 \times 5$ .

