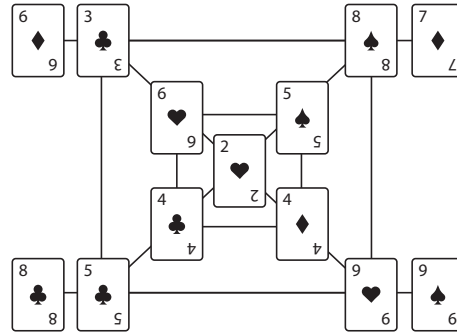# Spider Math Paths

Suppose 13 cards are dealt as shown.

For each problem, retracing a web path is allowed, but the value of the card(s) can counted only once.

1. Suppose you start at any position on the web and collect any 5 cards.

    a. What is the highest total possible?
    b. What is the lowest total possible?
    c. Is there an answer that is unique?

2. Suppose you must start at any corner card and follow the web to collect 4 cards.

    a. What is the highest total possible?
    b. What is the lowest total possible?
    c. Is there an answer that is unique?

3. Suppose we change the operation to multiplication. What are the new answers for problems 1 and 2?

4. Suppose the black cards are positive integers and the red cards are negative integers. What are the new answers for problems 1 and 2?

Variations

- Start with a score of 52 and use subtraction.

- Start with a score of 52 and use division. Calculators allowed.

- Do not allow retracing of paths.

- Collect less than 5 cards or more than 5 cards.

- Place 13 new cards on the Spider Math Board and find the answers to problems 1-4.