

Name

Date

Score

Performance Task



Putting a Spin on It

Sara and De'Quan are playing a game where a spinner is spun for each player's turn. Each player receives the number of points shown on the spinner for each spin.

Show all your work to receive full credit.

Part A

To play the game, each player spins the spinner. The players take turns spinning and each player has four turns. To keep track of the scores of each player, the score at the end of each spin is rounded to the nearest ten. Complete the table by rounding the scores at the end of each player's turn to the nearest ten.

	Sara's Score	Sara's Rounded Score	De'Quan's Score	De'Quan's Rounded Score
Turn 1	78		81	
Turn 2	67		77	
Turn 3	86		72	
Turn 4	73		63	

Part B

Think about the difficulty of adding the scores that are not rounded and adding the scores that are rounded. Give a reason for why rounding the scores to the nearest ten after each turn is helpful.

Part C

Find each player's total score when they do not round after each turn and when they do round after each turn. Does rounding the scores to the nearest ten after each turn change the outcome of the game? Explain.

Part D

Sara and De'Quan decide to play the game again. The results are shown in this table. This time they decide to round their scores to the nearest ten at the very end of the game. Find each player's total score, and then round the scores to the nearest ten. Who wins the game?

	Sara	De'Quan
Turn 1	74	81
Turn 2	67	86
Turn 3	88	69
Turn 4	83	78

Part E

In the first game, De'Quan scored more points without rounding but still lost the game. For the second game, they wait to round the scores until the end. In the second game, is it possible for De'Quan to score more points than Sara before rounding and still lose the game? Explain.