

Open-Ended Template

Names: Cathy, Peggy, and Rosa

Grade Level: Pre-K - 2

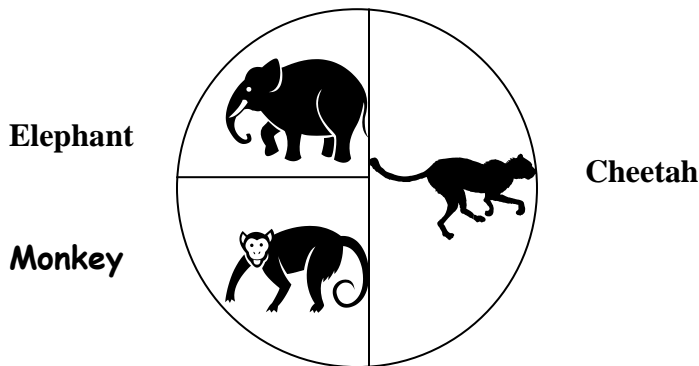
Content Area: Probability and Predictions

PA Standard(s) addressed: 2.7.3.D

NCTM Standard(s) addressed: Select and use appropriate statistical methods to analyze data. Describe parts of the data and the set of data as a whole to determine what the data show.

Problem Name: The Great African Race

Problem: A second grade class of 25 students played “The Great African Race”. They used the spinner to predict which animal would win the race. After each student completed 4 spins, they made a tally chart to show the results of their spins.



Directions: Using this spinner, which animal do you predict would win the most? Explain why.

SPINNER RESULTS	
Monkey	
Cheetah	
Elephant	

Using the tally chart results, what is the difference between the animal that won the most and the animal that had the least? Show your work and explain.

Problem Solution(s):

- a. Cheetah (2 points)
- b. Explanation should include that the cheetah area is larger ($\frac{1}{2}$ of the circle) than the elephant area ($\frac{1}{4}$ of the circle) or the monkey area ($\frac{1}{4}$ of the circle). So you have more chances to land on $\frac{1}{2}$ of a circle than $\frac{1}{4}$ of a circle. (1 point)
- c. Correct computation and show work. $55 - 21 = 34$ (1 point)
- d. Children need to indicate they counted the tallies to find the total of animal spins. Then they need to tell the Cheetah had the most and the monkey had the least. Subtract to find the difference. (1 point)

Specific Rubric: The Great African Race

- 5. Advanced Understanding:** All correct answers with correct explanations for steps **a**, **b**, **c**, and **d**.
- 4. Satisfactory Understanding:** Answer **a** must be correct. Two of the other three solutions must be correct.
- 3. Almost Satisfactory Understanding:** Answer **a** must be correct. One of the other three solutions must be correct.
- 2. Partial Understanding:** Answer **a** must be correct.
- 1. Minimal Understanding:** Answer **a** is not correct. One of the other three solutions must be correct.
- 0. No Understanding:** Incorrect answer, no work, no explanation.