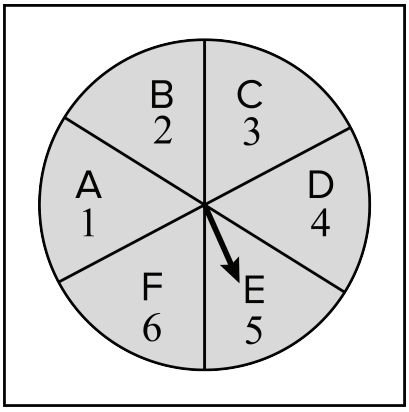
NAME:

Test 27 (Lessons 53–54): Introduction to Probability

For problems 1–6, determine the probabilities using the fair spinner. Write answers in simplified form.



1) $P(\text{vowel})$

2) $P(\text{even number})$

3) $P(C')$

4) $P(C \cup 5)$

5) $P(\text{odd or consonant})$

6) Explain which event (problems 1–5) is the most likely to occur.

7) Construct a Venn diagram D to represent possible rolls of a single die containing the subsets: odd rolls and rolls greater than two.

For problems 8–10, use the two-way table.
A small survey was conducted at a college to determine where students and professors lived.

	On Campus	Off Campus
Student	360	75
Professor	6	84

8) A student living off campus

9) A professor or student living on campus

10) A professor living on campus

For problems 11–15, use the following scenario.

Ms. Liu's class conducted an experiment by placing 20 cards in a bag. Each time a card was drawn, it was replaced before drawing another.

11–13) Find the probability of each card color to the nearest whole percent.

Experiment Results

Card	Tally
red	74
blue	88
yellow	82

14) Ms. Liu says there are approximately the same number of each color card in the bag. Explain if the experiment was conducted fairly.

15) Estimate how many cards of each color were in the bag using the experiment.