TAKS **EXAMPLE 3** **TAKS PRACTICE: Multiple Choice**

Each section of the spinner shown has the same area. The spinner was spun 28 times. The table shows the results. For which color is the experimental probability of stopping on the color the same as the theoretical probability?

Spinner Results			
Red	Green	Blue	Yellow
7	11	5	5

Ⓐ Red   Ⓑ Green   Ⓒ Blue   Ⓓ Yellow

Solution

The theoretical probability of stopping on each of the four colors is $\frac{1}{4}$. outcomes in the table to find the experimental probabilities.

$P(\text{red}) = \frac{7}{28} = \frac{1}{4}$ $P(\text{green}) = \frac{11}{28}$ $P(\text{blue}) = \frac{5}{28}$ $P(\text{yellow}) = \frac{5}{28}$

▶ The correct answer is A. Ⓐ Ⓑ Ⓒ Ⓓ

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ODDS The odds of an event compare the number of favorable and unfavorable outcomes when all outcomes are equally likely.

$$\textbf{Odds in favor} = \frac{\textbf{Number of favorable outcomes}}{\textbf{Number of unfavorable outcomes}}$$

$$\textbf{Odds against} = \frac{\textbf{Number of unfavorable outcomes}}{\textbf{Number of favorable outcomes}}$$

EXAMPLE 4 **Find the odds**

READING

Odds are read as the ratio of one number to another. For instance, the odds $\frac{3}{1}$ are read as "three to one." Odds are usually written as $a : b$.

SPINNER In Example 3, find the odds against stopping on green.

Solution

The 4 possible outcomes are all equally likely. Green is the 1 favorable outcome. The other 3 colors are unfavorable outcomes.

Odds against green $= \dfrac{\text{Number of unfavorable outcomes}}{\text{Number of favorable outcomes}} = \dfrac{3}{1}$ or $3 : 1$.

✓ **GUIDED PRACTICE** for Examples 3 and 4

4. In Example 3, for which color is the experimental probability of stopping on the color greater than the theoretical probability?

5. In Example 3, what are the odds in favor of stopping on blue?