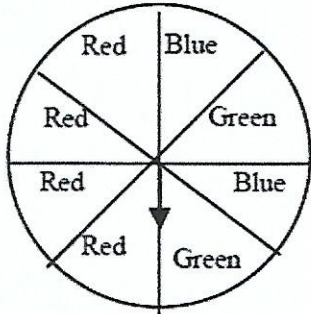**Name:** ANSWER KEY   *9N2 – Probability* REVIEW

Date:

Class:

Directions: Solve each problem by determining the probability that the event will occur. Give the <u>fraction, percent and likelihood that an event will occur</u>.

Spinner sections: Red, Blue, Red, Green, Red, Blue, Red, Green

	Fraction	Percent	Likelihood? (Circle One)
1. P(Red)	$\frac{4}{8} = \frac{2}{4} = \frac{1}{2}$	_50_ %	Impossible Unlikely (Equally Likely) Likely Certain
2. P(Green)	$\frac{2}{8} = \frac{1}{4}$	_25_ %	Impossible (Unlikely) Equally Likely Likely Certain

a. Which color(s) is the spinner <u>least</u> likely to land on? __blue or green__

b. Which color(s) is the spinner <u>most</u> likely to land on? __red__

You toss a dice 60 times and recorded the results in the table below.

# on dice	Results
1	HHT II
2	HHT IIII
3	HHT HHT IIII
4	HHT HHT
5	HHT HHT II
6	HHT III

Calculate the <u>THEORETICAL PROBABILITY</u> of the following:

P(1) $\frac{1}{6}$ P(2) $\frac{1}{6}$ P(not 3) $\frac{5}{6}$

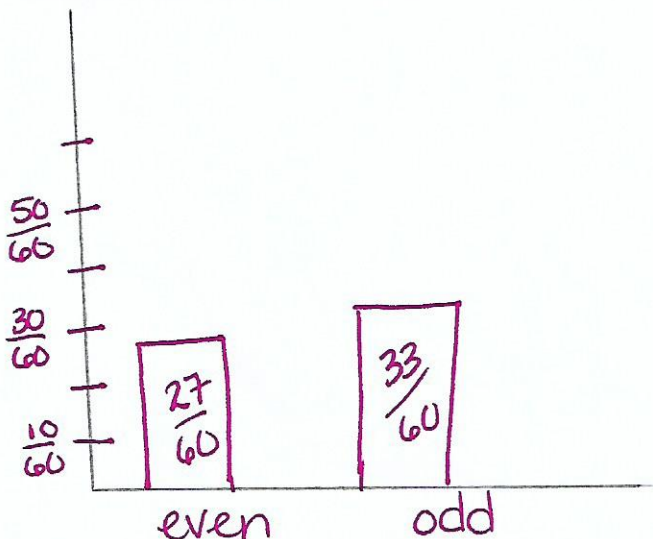Calculate the <u>EXPERIMENTAL PROBABILITY</u> of the following:

P(4) $\frac{10}{60} = \frac{1}{6}$ P(5) $\frac{12}{60} = \frac{1}{5}$ P(even number) $\frac{27}{60} = \frac{9}{20}$

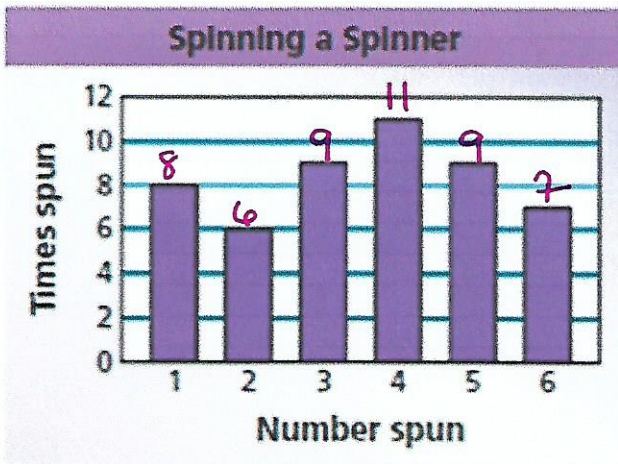What number had an experimental probability that matched the theoretical probability? **4 because theoretical and experim... both equal $\frac{1}{6}$.**

Graph the experimental probability of rolling an even number

Bar graph: even = $\frac{27}{60}$, odd = $\frac{33}{60}$; y-axis marked $\frac{10}{60}$, $\frac{30}{60}$, $\frac{50}{60}$

Use the bar graph to find the _experimental_ probability of the event.

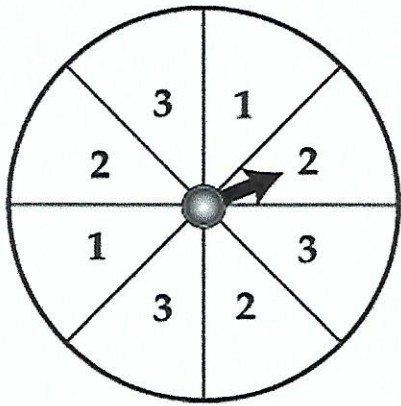**Spinning a Spinner**

Times spun / Number spun

1. Spinning a 4 $= \dfrac{11}{50}$

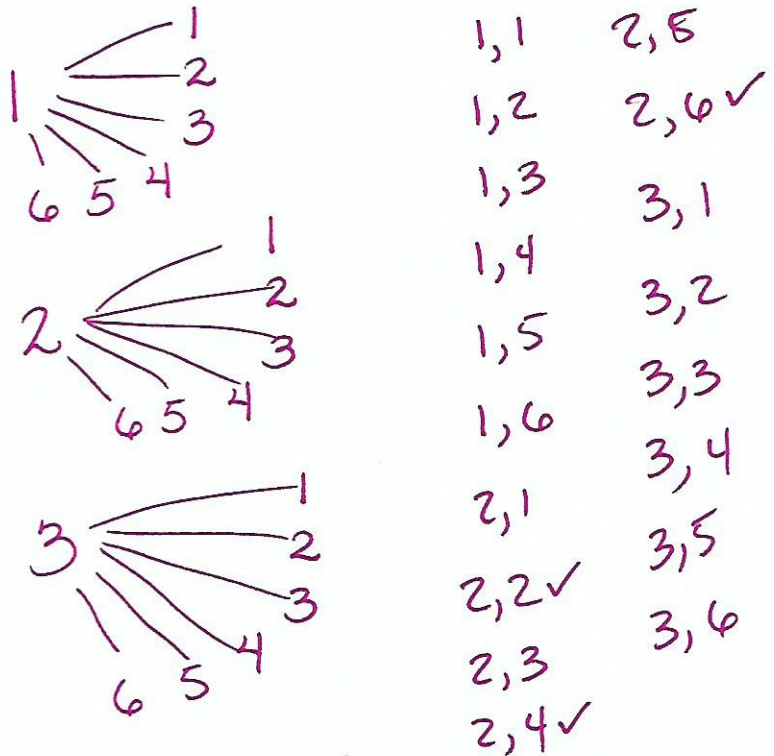2. NOT spinning a 2 $\dfrac{44}{50} = \dfrac{22}{25}$

3. Spinning a 1 or a 3 $\dfrac{17}{50}$

9N2.2 – 2.3

You spin the spinner AND roll a number die with the numbers 1-6.

Create a TREE DIAGRAM to display all possible outcomes

1,1   2,5

1,2   2,6 ✓

1,3   3,1

1,4   3,2

1,5   3,3

1,6   3,4

2,1   3,5

2,2 ✓   3,6

2,3

2,4 ✓

How many possible outcomes are there?

18 outcomes

What is the probability of getting an _even_ number on the spinner _and_ the number cube?

$\dfrac{3}{18} = \dfrac{1}{6}$

SCORE

9 N 2.1				9 N 2.2				9 N 2.3			
NA	E	D	M	NA	E	D	M	NA	E	D	M
	NA = Not Achieved				E = Emerging	D			= Developing	M = Mastery	