Unit 2 Exam Review – Probability

Name: _____   **Date**: _____

1. Fill-in the blanks by finding the **probability** of:

   a) Picking a '**king**' out of a standard deck of cards: _____

   b) Picking a '**five**' or '**jack**' out of a full deck of cards: _____

   c) Picking a '**red**' gummie bear out of a bag of 10 red, 3 blue, 7 green, & 2 yellow: _____

   d) Picking a '**club**' or a '**heart**' out of a standard deck of cards: _____

   e) A team winning two games in a row against an equally good opponent: _____

   f) Your ticket being picked out of a draw with 1,000 other names in it: _____

2. Johnny flips a coin 3 times in a row. Complete the following:

   a) Make a **tree-diagram** to show the possible outcomes of flipping a coin, **3 times**.

   b) Determine the probability of flipping **one head**.

   c) What is the probability of flipping <u>at most</u> **two heads**.

   d) What is the probability of flipping **three tails**.

3. Natalie rolled a single die 50 times and the number '*5*' came up 8 times.
   a) Calculate Natalie's **experimental probability** of rolling a '*5*' and explain why the result does not match the theoretical probability of 1/6.

   b) Explain what one would have to do to make the **experimental probability** closer to the **theoretical probability** of 1/6.

4. During a probability experiment, a spinner with 5 equal sectors is spun 60 times. The results are shown in the bar graph to the right. Determine:
   a) The experimental probability of spinning a 3. Express your answer as a fraction in lowest terms.

   Spinner Results
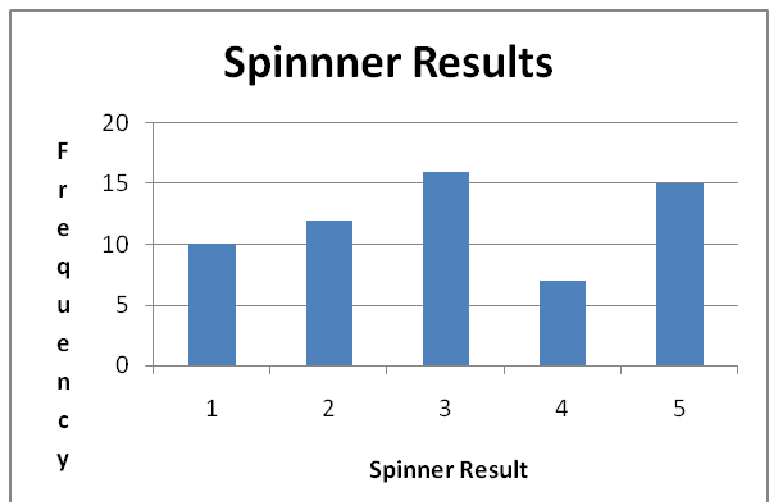
   b) The experimental probability of spinning a 1 or 2. Express your answer as a decimal

   c) The experimental probability of not spinning a 5. Express your answer as a percent.

5. Find the probability of rolling a sum of 8 with two dice. Draw a table of sums to help you.