Probability Practice Test

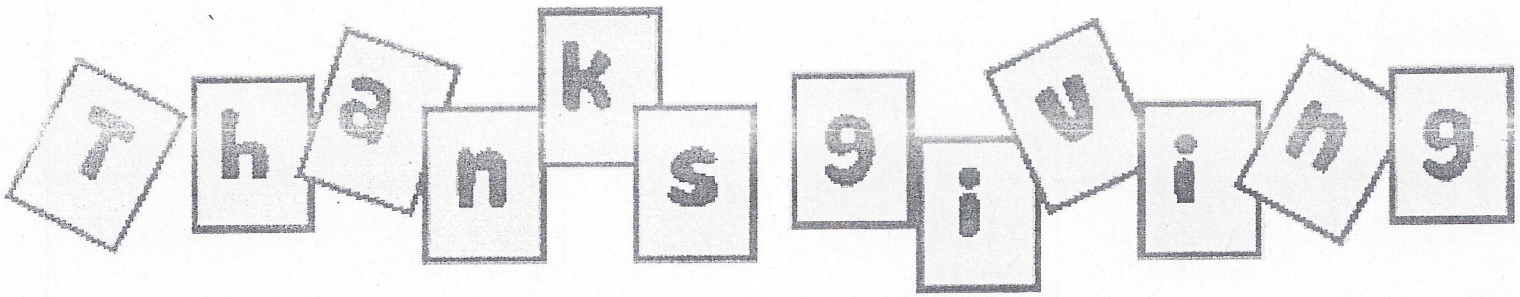
DIRECTIONS: You may use your notes for this test, but you may NOT copy anything from another's paper. You may, however, explain how to do a problem to your group members, and you may call me over for a hint for any of the problems. Your grade on this will be based on a combination of your own work and your group members' work, so make sure EVERYBODY in your group understands the problems thoroughly. Make sure you show all the work for full credit. When your group is done, staple all papers together properly with one staple. To show that you are reading these directions, write "show all work in capital letters across the top of the page.

Each question is worth 8 points, but because this is a practice test you can only receive 1/4 of those points, so this practice test is worth 30 points for you.

Your Name _____

Group Member Names:

You may use a calculator anywhere on this worksheet.



1) The letters of Thanksgiving are written on cards and placed in a bag. Ben reaches into the bag and pulls out a letter.

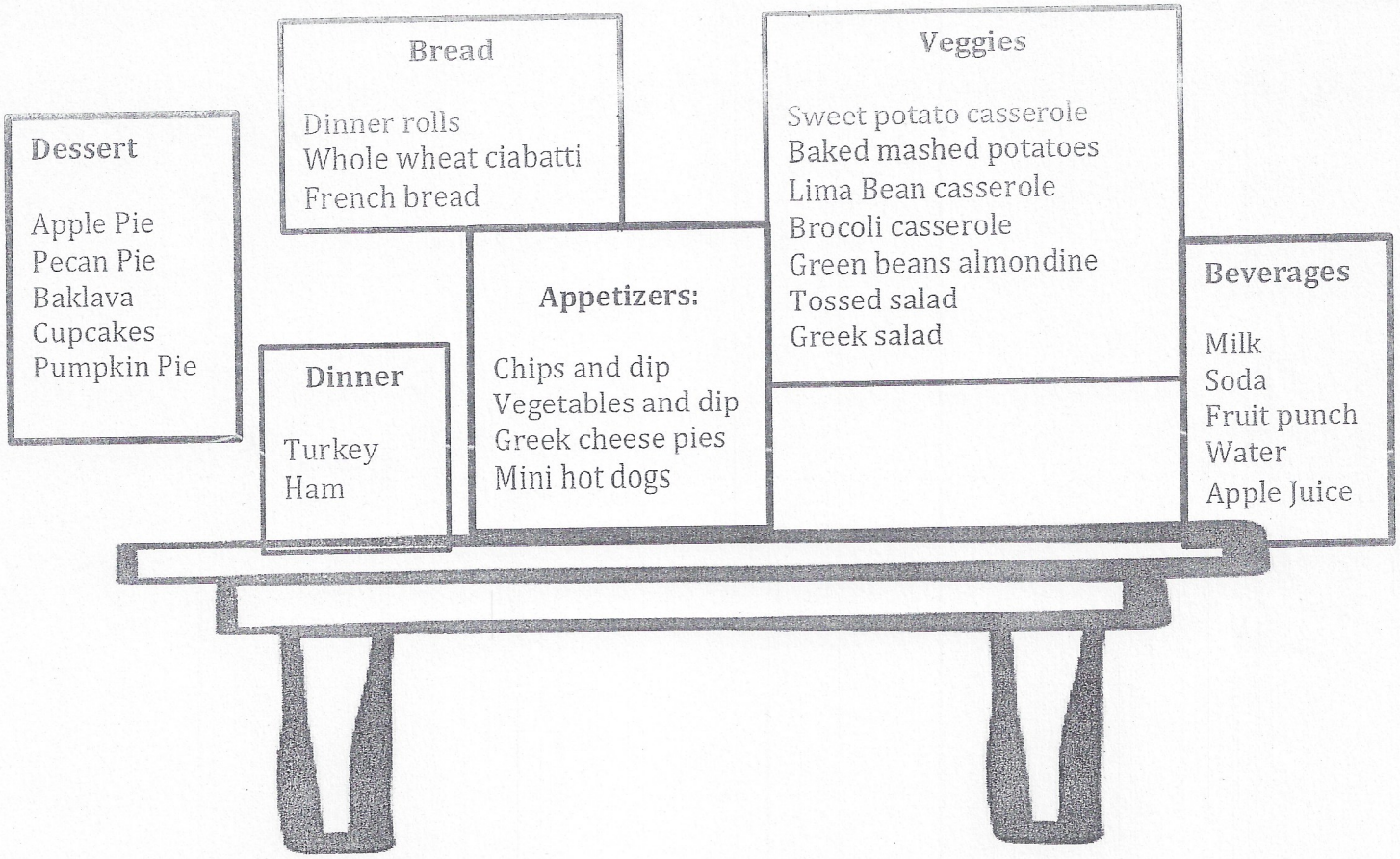
A) What is the probability that the letter is a T? Give your answer as a fraction, decimal and percent.

B) What is the probability that the letter is N? Give your answer as a fraction, decimal and percent.

C) What letter(s) is Ben most likely to pull from the bag? Explain.

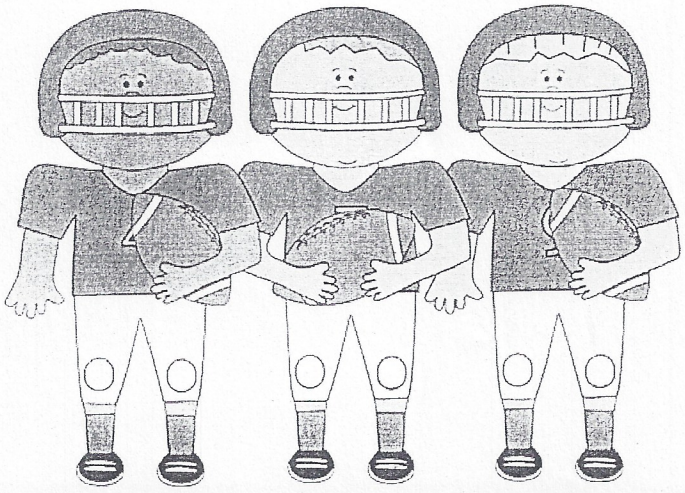
D) What letter(s) is Ben least likely to pull from the bag? Explain.

2) The supermarket had a special promotion for Thanksgiving. It gave out tickets numbered 1-20 and mixed them all up. Then a ticket was drawn at random. What is the probability that the ticket drawn has a number, which is a multiple of 3 or 5? Give your answer as a fraction, decimal and percent.



3) The diagram above shows the menu for the Gumas family Thanksgiving. Using the diagram, how many possibilities are there for Thanksgiving dinner if you choose one item from each category? What are the two methods you could use to answer this question. Use one of the methods and show your work below. Why did you decide on this method?

4) We play our own version of football on Thanksgiving. Chris, Dad, Georgia, Johnny, and Mom want to play. How many groups of 2 can be made? Show your sample space.



5) I decide to play Monopoly with my nieces and nephews after dinner. What is the probability of getting a sum of 9 when I roll the dice? Give your answer as a fraction, decimal and percent. What sum am I least likely to get? Explain.

6) I roll the sum of ten 6 times after making 35 rolls. Compare the experimental and theoretical probabilities of getting a sum of 10.

7) I want to wear a special ring that my mom gave me so I go to our safe to get the ring. Oh no! I forgot the combination. I know the last 2 numbers are 7 and 7. What is the chance that I will guess the combination if the lock has an 8 digit code and the numbers (0-9) can repeat?

8) My family loves the cupcake assortment. There are 12 carrot cupcakes, 8 chocolate cupcakes, 8 pumpkin spice cupcakes and 6 vanilla cupcakes. I randomly pass out the cupcakes. (These questions continue ....so what happens in part a should be considered when doing part b and so on)

a) What is the chance that my son will get a pumpkin spice cupcake? Give your answer as a fraction, decimal and percent.

b) He eats his cupcake....now what is the chance that my daughter gets a pumpkin spice cupcake? Give your answer as a fraction, decimal and percent.

c) She eats hers and loves it. What is the chance that my sister will get a chocolate cupcake? Give your answer as a fraction, decimal and percent.

d) Peter is trying to decide what type of cupcake he wants. Which type does he have the highest probability of getting after the others above?

9) Label the probability line below and place the following events along the line.

a) It will be 100 degrees on Thanksgiving.
b) There will be a football game on TV on Thanksgiving.
c) There will be turkey on Thanksgiving.
d) It will rain on Thanksgiving.
e) The first baby born on Thanksgiving will be a girl.

between dependent and independent events. Give two examples of each.

11) My recipe for stuffing calls for $3\frac{1}{2}$ cups of bread crumbs, but I want to make $1\frac{1}{2}$ times the recipe. How many cups of bread crumbs do I need?

12) I have $14\frac{2}{3}$ cupcakes left and need to divide them up between the 20 guests. What part does each guest get?

13) There are 6 guests who would like $\frac{3}{5}$ cup of tea each. How many cups of tea should I make?

14) The fruit punch was delicious. There were $46\frac{1}{4}$ cups of punch in the bowl. My guests drank $37\frac{5}{8}$ cups. How much punch is left?

15) After dinner we go out to shoot some baskets. Nicky is a high school basketball player who makes 50% of his shots from the three-point line.
Fill in the table below if the question you want to answer is:

If he takes 13 shots during a game predict the number of baskets he will make.

Random Device	Can it be used? √ or X	How?
Coin		
Spinner		
Playing Cards		
Number Cube		
Random Number Table		
Random Number Generator		