DIFERENTIATED INSTRUCTION
MENUS/LEARNING CONTRACTS

TIC-TAC-TOE

NAME OF STUDENT:
CLASS:
DATE:

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AGREED UPON DATE OF COMPLETION:

STUDENT SIGNATURE:

TEACHER SIGNATURE:
MENU CONTRACT

“Probability”

Due: ___________

All items in the main dish and the specified number of side dishes must be complete by the due date. You may select among the side dishes and you may decide to do some of the desserts items, as well.

Main Dishes (complete all)

1. Complete the “meteorology simulation” on p. 88-89 of your textbook.

2. Create a list of 10 pairs of events. 5 pairs should contain events that are dependent; 5 pairs should contain events that are independent. Explain each classification.

3. Complete the “frequency table” assignment on p. 506-507 of your textbook.

4. Examine the attached list of functions and determine which functions represent probability distributions.

Side Dishes (Select 2)

1. Work with a partner to analyze the game of “Primarily Odd.” See your teacher for game cubes and further instructions.

2. Design a “game spinner” that has this probability distribution: P(red) =0.1; P(green) = 0.2; P(blue) = 0.3; P(yellow) = 0.4.

3. Suppose a dart lands on a dartboard made up of four concentric circles. For the center of the board (the “bull’s eye”), r=1.5; the remaining rings have widths of 1.5. Use your understanding of area and probability to determine the probability of 1) hitting a “bull’s eye” and 2) landing in the outermost ring.

Desserts (Select 1)

1. Figure the probability of “Murphy’s Law” and make a case for whether or not it should indeed be a “law.”

2. Use a frequency table to chart the colors that your classmates wear for a week. Then, use probability to predict how many students will wear a certain color on a given day.