8.3 Puzzle Time

What Do You Call A Pig That Does Karate?

Write the letter of each answer in the box containing the exercise number.

Find the probability.

1. A bowl contains three grapefruits and four oranges. You randomly select a piece of fruit, eat it, and then randomly select another piece of fruit. Find the probability that you select an orange second given that you selected a grapefruit first.

2. You have five mystery novels and two science fiction novels. You randomly select two different novels to read. Find the probability that you select a mystery novel to read second given that you randomly selected a science fiction novel to read first.
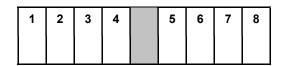
A company surveys cyclists about bicycle designs. The two-way table shows the joint relative frequencies. Find the probability.

		Like	Dislike	No Opinion
Design	**A**	0.326	0.023	0.112
	B	0.279	0.102	0.158

3. $P(\text{like} \mid \text{Design } A)$

4. $P(\text{no option} \mid \text{Design } B)$

5. $P(\text{Design } A \mid \text{dislike})$

6. $P(\text{Design } B \mid \text{like})$

At a restaurant, 92% of the customers order an entrée, 28% order an entrée and a soup, and 36% order an entrée and a dessert.

7. What is the probability that a customer who orders an entrée also orders a dessert?

8. What is the probability that a customer who orders an entrée also orders a soup?

Answers

H. 0.461

P. about 30%

R. 0.707

O. about 39%

O. about 83%

C. 0.184

K. 0.293

P. about 67%

1	2	3	4		5	6	7	8

Solve each of the following story problems. Then follow the directions at the bottom of the page to see if you made any mistakes.

A. A tall apple tree is 36 feet high. A very tall maple tree is 20 feet taller than three times the height of the apple tree. How tall is the maple tree.   _____ feet

B. The area of a 20 foot wide garden is 760 square feet. How long is the garden?   _____ feet

C. Straight lawn chairs cost $34 and reclining lawn chairs cost twice as much. How much would a pair of each cost?   _____ dollars

D. It is estimated that a cow eats 1000 pounds of grain, hay, and silage per year. If cows are fed the same amount of grain as silage and three times as much hay as grain, how much grain will a cow eat in a year?   _____ pounds

E. Bricks costing 50 cents each are four inches wide and eight inches long. How much would it cost for enough bricks to build a brick patio 12 feet wide by 20 feet long?   _____ dollars

F. A byte is the term used for the amount of computer memory needed to store one letter, digit, blank space, or other keyboard character. In computer terminology, K is the symbol used to represent the number 1024. If the internal memory of a microcomputer is 64K, and a page of an average book contains 2500 characters, to the nearest page, how many pages of data could be stored in this microcomputer?   _____ pages

G. The record low temperature at the Russian installation in Antarctica is about 6 degrees F lower than the record low at the American installation. If the average of these two low temperatures is −118 degrees F, find the American record low. Then write the absolute value of this number as the answer.   _____ degrees F

H. A square and an equilateral triangle have the same perimeter. If a side of the square is 42 cm, what is the length of a side of the triangle?   _____ cm

Write each of your numerical answers on the lines above the letter of the problem to get a 21 digit number.

__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __
⌣   ⌣   ⌣   ⌣   ⌣   ⌣   ⌣   ⌣
   A   B   C   D   E   F   G   H
Subtract 123456789098765432l0 from this 21 digit number.

__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __

Add the digits in this new number: _____
If your answer is not 83, you made some mistakes.