

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. $P(\text{like} | \text{Design } A)$
4. $P(\text{no option} | \text{Design } B)$
5. $P(\text{Design } A | \text{dislike})$
6. $P(\text{Design } B | \text{like})$

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
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Puzzle Time

What Do You Put In A Barrel To Make It Lighter?

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

Tell whether the events are dependent or independent.

1. You roll number cube and select a card from a standard deck of cards.

Event A: You roll a 3.

Event B: You select a face card.

2. A bag of marbles contains 3 red marbles, 2 yellow marbles, and 4 blue marbles. You randomly choose a marble, and without replacing it, you randomly choose another marble.

Event A: You choose a red marble first.

Event B: You choose a blue marble second.

Answers

L. $\frac{2}{9}$

H. dependent

E. $\frac{2}{21}$

O. $\frac{1}{15}$

A. independent

Find the probability.

3. A container contains 13 almonds, 8 walnuts, and 19 peanuts. You randomly choose one nut and eat it. Then you randomly choose another nut. Find the probability that you choose a walnut on your first pick and an almond on your second pick.
4. The letters M, A, R, B, L, and E are each written on a card and placed into a hat. You randomly choose a card, return it, and then choose another card. Find the probability that you choose a vowel on your first pick and a consonant on your second pick.
5. A bag contains 3 red chips, 4 blue chips, 5 yellow chips, and 3 green chips. You randomly choose a chip, and without replacing it, you randomly choose another chip. Find the probability that you choose a yellow chip on your first pick and a blue chip on your second pick.

1		2	3	4	5
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