Name:_____ Class:_____ Date:_____

Quiz Chapter 17

Indicate the answer choice that best completes the statement or answers the question.

	1	2	3	4	5	6	7	8	9	10
a										
b										
c										
d										
e										

1. A sports book claims the Cleveland Browns have a –5% chance to win the Super Bowl. From this we can conclude:
   a. The Cleveland Browns have a 1 in 20 chance of winning the Super Bowl.
   b. The Cleveland Browns cannot win the Super Bowl.
   c. The Cleveland Browns have won five Super Bowls.
   d. The sports book made a mistake; –5% is not a possible value of the probability. $0 \le P \le 1$

$0 \le P_{\text{th}} \le 100\%$

Suppose you have five friends: Malik, Samson, Quint, Jennifer, and Monique.

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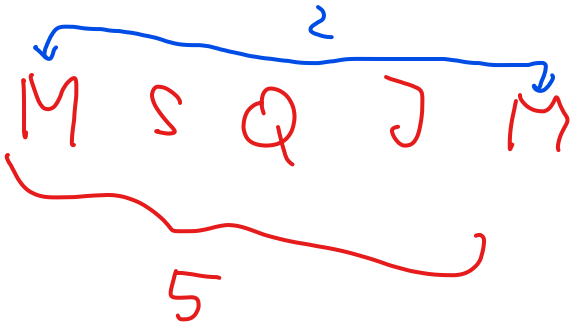
2. You randomly choose one of them to attend a basketball game with you. What is the probability that you choose a friend whose name starts with the letter "M"?

a. 2
b. 1/2
c. 2/3
d. 2/5
e. 3/5



$P = \frac{2}{5}$

Suppose you have a bag of 10 sandwiches from the deli: one bacon, lettuce, and tomato (BLT); one ham on rye; and eight bologna sandwiches. You pull out one sandwich and discover that you have pulled out the ham on rye.

3. If you *do not* put the sandwich back into the bag, what is the probability that you pull out the ham on rye the next time you pull out a sandwich?

a. 0.5 (either you pull it out or you don't)
b. 1/10
c. 1/9
d. 0 $= \frac{0}{9}$
e. 1

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4. If you put the sandwich back into the bag, what is the probability that you pull out the ham on rye the next time you pull out a sandwich?

a. 0.5 (either you pull it out or you don't)
b. 1/10
c. 1/9
d. 0
e. 1

5. If you put the sandwich back into the bag, what is the probability that you pull out the BLT the next time you pull out a sandwich?

a. 0.5 (either you pull out the BLT or you don't)
b. 1/10
c. 1/9
d. 0
e. 1

Here is the distribution of ethnicity for inmates on death row as of April 2013.

Ethnicity	African American	Caucasian	Latino	Native American	Asian

Quiz Chapter 17

Probability	0.42	0.43	?	0.01	0.01

6. What is the probability that a death row inmate is Latino?

a. 0.10
b. 0.13
c. 13
d. Cannot be determined from the given information since the Latino probability is left blank.

$? = 1 - (0.42 + 0.43 + 0.01 + 0.01)$
$= 1 - 0.87 = 0.13$

7. A Home Depot store receives a shipment of 500 cordless screwdrivers of the same model. The 500 boxes are labeled 0, 1, 2, 3, ... , 499. The inventory specialist at the store wishes to test 5 of the screwdrivers. She uses the table of random digits to choose a single pair of digits at random from all the possible pairs 00, 01, ... , 99. It happens that she chooses the pair 69. She then inspects all the phones whose labels end in the chosen pair of digits. In this case, she will inspect the phones with labels 69, 169, 269, 369, and 469. The chance that the phone labeled 341 would be one of those chosen was

a. 1 in 500 (or 1/500).
b. 5 in 100 (or 5/100).

Can't understand this problem

c. 1 in 100 (or 1/100).
d. 1 in 5 (or 1/5).

8. It is known that about 82% of Dr. Street's introductory statistics students pass his course. What is the probability that a randomly selected student from Dr. Street's current introductory statistics course will earn a passing grade?

a. 1/82
b. 0.82
c. 82
d. 0.50
e. 0.18

P = 0.82

means 82%

Here is the distribution of ethnicity for inmates on death row as of April 2013.

Ethnicity	African American	Caucasian	Latino	Native American	Asian
Probability	0.42	0.43		0.01	0.01

9. What is the probability that a death row inmate is

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Caucasian or Asian?

a. 0.01
b. 0.04
c. 0.43
d. 0.44

$0.43 + 0.01 = 0.44$

because "C" does not overlap with "A" in the table

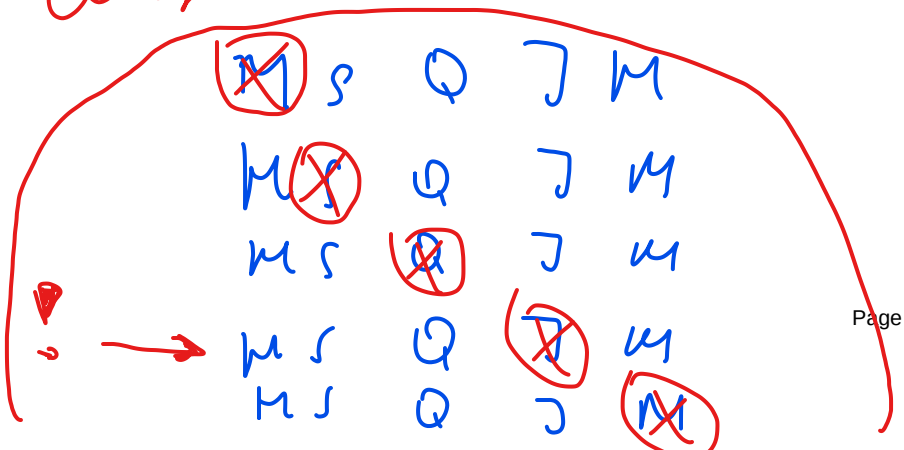
Suppose you have five friends: Malik, Samson, Quint, Jennifer, and Monique.

10. You randomly choose four of them to attend a basketball game with you. What is the probability that Jennifer is not chosen to attend the game with you?

a. 4
b. 1/4
c. 1/5
d. 4/5
e. 1

$P(\text{J is not chosen}) = \frac{1}{5}$

there is only one in five cases when J is not chosen



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Answer Key

1. d

2. d

3. d

4. b

5. b

6. b

7. c

8. b

9. d

10. c