Worksheet 14

1- **A chance process that leads to well-defined results called outcomes**
   A. Sample space
   B. Outcome
   C. probability experiment
   D. tree diagram

2- **Probability uses a frequency distribution to compute probabilities**
   A. Empirical probability
   B. Subjective probability
   C. Classical probability
   D. A sample space

3- **If there is a 20% chance that it will rain tomorrow, what is the probability that it will not rain tomorrow ?**
   A. 0
   B. 0.20
   C. 0.08
   D. 0.80

4- **Number of _sample space_ for the children gender (B for boy and G for girl) in a family with three children is**
   A. S={BBG,BGB,BGG,GBB,GBG,GGB}
   B. S={BBB,BBG,BGB,BGG,GBB,GBG,GGB,GGG}
   C. 3
   D. 8

5- **"The probability that is storm(عاصفة)will happen next week is 50% " This is an example:**
   A. Empirical probability
   B. Subjective probability
   C. Classical probability
   D. A sample space

6- **A die is rolled one time, find the probability of getting number less than or equal 2 or an even number.**
   A.1   B. 2/3   C. 5/3   D. 4/8

7- **Which of these numbers cannot be a probability:**
   A. 0.01   B. 2%   C. - 0.01   D. 1

8- **The probability that a student has a car is 0.8, and the probability that he has an I-Phone is 0.7, while the probability that he either car or I-Phone is 0.6. Find the probability that he has both.**

   A. 0.9   B. 0.6   C. 0.8

Worksheet15

1- **If P(A) = 0.4 , P(B) = 0.3, and P(A and B) = 0.12, then the events A and B <u>are said</u> to be:**
   A. Not mutually exclusive events
   B. Dependent events
   C. Independent events
   D. Mutually exclusive events

2- **The probabilities of the events A and B are** $P(A \text{ and } B) = 0.2$, and $P(B|A) = 0.3$. **Find** $P(\overline{A})$.

   A. 0.4
   B. 0.5
   C. 0.6
   D. 0.3

3- **It is known that 10% of men are heavy smokers. If 3 men are selected at random, find the probability that <u>all</u> of them are heavy smokers**
   A. 0.271
   B. 0.729
   C. 0.999
   D. 0.001

The table below shows the number of the students in the classroom who studies Biology or Physics at King Abdul-Aziz University . Answer the following questions(4-5-6)

	Biology	Physics
Female	15	12
Male	15	8

4- **Find the probability that a student chosen at random is a male or takes Biology?**
   A. 0.3
   B. 0.16
   C. 0.76
   D. 0.84

5- **Find the probability that a student chosen at random is a female and takes Physics?**
   A. 0.6
   B. 0.24
   C. 0.44
   D. 0.16

6- **Find the probability that a student chosen at random is a female given that, she takes Physics?**
   A. 0.6
   B. 0.24
   C. 0.44
   D. 0.7

7- **Box A contains 4 red balls and 2 white balls. Box B contains 2 red balls, 2 white balls. A die is rolled first and if the outcome is an even number a ball is chosen at random from Box A, and if the outcome is an odd number a ball is randomly chosen from Box B. Find the probability that a red ball is chosen?**

   A. $\dfrac{2}{9}$ B. $\dfrac{6}{24}$ C. $\dfrac{7}{12}$ D. $\dfrac{2}{12}$

Worksheet 16

1- A box contains apple and orange fruits, a person selects two fruits without replacement . if the probability of selecting an apple and orange is — , and the probability of selecting an orange on the first draw is — ,then the probability of selecting an apple on the second draw, given that the first fruit selected was an orange is

    A. 1.1

    B. 0.89

    C. 0.1

    D. -1

2- A box of fruits contains 3 apples and 7 oranges. If two fruits are drawn from the box at random, what is the probability that both of them are orange?

    A. 1/15   B. 7/15   C. 49/100   D. 9/100

3- How many ways can a person select 4 science books and 3 math's books from 9 science books and 5 math's books

    A.   +

    B.   /

    C.

    D.   ×

It is reported that 72% of working women use computer at work. Choose 5 working women at random. Answer the following two questions (4-5):

4- The probability that none of them use a computer in their jobs is:

    A. 0.193

    B. 0.807

    C. 0.002

    D. 0.998

5- The probability that at least 1 doesn't use a computer at work is:

    A. 0.193

    B. 0.807

    C. 0.002

    D. 0.998

6- A box contains 9 apples, 3 of which are defective . if 4 were sold at random, the probability that exactly 2 are defective is …..

    A. 0.476

    B. 0.143

    C. 0.357

    D. 0.789

7- One company's ID cards consist of 2 letters followed by 2 digits. How many cards be made if repetition are not allowed?

    A. 4

    B. 58500

    C. 60

    D. 67600

8- **A JARIR store has 5 HP laptops and 4 SONEY laptops on the counter .if two customers purchased a laptop, Find the probability that one of each laptop was purchased.**

    A. —

    B. –

    C. —

    D. –

9- **How many different ways can 2 tickets be selected from 6 tickets if each ticket wins a different prize?**

    A. 15   B. 27   C.12   D. 30

10- **If 4 different-sized washers (غسالات) are arranged in a row, then the probability that they will be arranged in order of size is:**

A) 4!

B) 1/24

C) 1/12

D) ¼

11- **If a menu has a choice of 7 appetizers (مقبلات), 6 main courses(اطباق رئيسية) , and 5 desserts (اطباق تحلية), then the sample space for all possible dinners can be determined by using........**

A) the fundamental counting rule.

B) the permutation rule.

C) the combination rule.

D) the addition rule.

Answer Key CH4

Worksheet 14:

1- c
2- a
3- d
4- d
5- b
6- b
7- c
8- a

Worksheet 15:

1- c
2- d
3- d
4- c
5- b
6- a
7- c

Worksheet 16:

1- b
2- b
3- d
4- c
5- b
6- c
7- b
8- d
9- d

10-c

11-a