Worksheet Chapter (4)

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 outcomes in the 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 will happen next week is 50% " This is an example:

A. Empirical probability
B. Subjective probability
C. Classical probability
D. A sample space

6- If a family has three children, find the probability that two of the three children are boys:

A. $\frac{1}{8}$
B. $\frac{3}{8}$
C. 1
D. $\frac{4}{8}$

7- **If P(A) = 0.4 , P(B) = 0.3, and P(A and B) = 0.12, then the events A and B are said to be:**

A. Impossible events
B. Dependent events
C. Independent events
D. Mutually exclusive events

8- **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. 0.3
B. 0.5
C. 0.6
D. 0.1

9- **It is known that 10% of men are heavy smokers. If 3 men are selected at random, find the probability that all 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 two questions (10, 11)

	Biology	Physics
Female	15	12
Male	15	8

10- **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

11- **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

12- 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. $\frac{2}{9}$ B. $\frac{6}{24}$ C. $\frac{7}{12}$ D. $\frac{2}{12}$

13- A box contains apple and orange fruits, a person selects two fruits without replacement . if the probability of selecting an apple and orange is $\frac{17}{38}$, and the probability of selecting an orange on the first draw is $\frac{5}{10}$,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

14- 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. $9C4 + 5C3$
B. $9C4 \div 5C3$
C. $14C7$
D. $9C4 \times 5C3$.

15- 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

16- 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

17- 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. $\frac{7}{36}$
B. $\frac{4}{9}$
C. $\frac{48}{91}$
D. $\frac{5}{9}$

18- 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

Answer Key:

1. C
2. A
3. D
4. D
5. B
6. B
7. C
8. A
9. D
10. C
11. B
12. C
13. B
14. D
15. C
16. B
17. D
18. D