TEST 1

1) Determine the following values:

1
1
1
1
1
1
1
1
1
1
1
1
1
1
1

2) Determine the average number of computers in households:

number of computers	0
number of households	6

3) How many ways can two students be selected from a group of 6 students?	
4) If each value from random sample were tripled then its variance is:	nine times higher comparing to original one

5) Complete the following rules:

A)Addition Rule: P(A ∪ B) =…..., where A and B are events.

B)Complementary Rule: P(A') = …….. denotes the probability of an event not ha

C)Independent events: P(A∩B) = ……

D)Conditional probability: P(A | B) = ……..

6) There are 5 green 7 red balls. Two balls are selected one by one without repla

7) What is the probability of getting a sum of 8 when two dice are thrown?

8)

The number of days on business trip	Probability
0	0,2
1	0,3
2	0,2
3	
4	0,1

Fill in the missing value. Calculate mean, variance, mode, median.

9) The probability of success (hitting the basket) is 0.8. We have 5 attempts.
What is the probability of hitting the basket:
a) just 4x?

b) maxium 4x?

c) less than 2x?

E(X)=
D(X)=

10) The number of telephone connections to the rescue system is an average of
a) What is the probability that the system receives 8 calls in 30 minutes?

b) no more than 7 calls per hour?

c) at least 1 call per 40 minutes?

E(X)=
D(X)=

2	2	3
2	2	3
2	2	3
2	2	4
2	2	4
2	2	4
2	2	4
2	2	4
2	2	4
2	3	4
2	3	4
2	3	4
2	3	4
2	3	4

1	2	3
10	15	5

three times higher comparing to original one	twice higher comparing to original one	the same

ANSWER (choose a)b)c)d))

appening.

a) ... = P(A) · P(B) — A)

b) ... = P(A) + P(B) - P(A∩B) — B)

c) ... = 1 - P(A). P(A') — C)

d) ... = P(A∩B) / P(B) — D)

acement. Find the probability that first is green and second is red.

4 calls per 20 minutes.

Measures of central tendency

Mean:

Mode:

Median:

Measures of variability

Sample variance

Sample Standard deviation

Range

Variation coefficient