

Subject 4

Please, don't write on the exam paper.

Exercise 1:

A refreshment stand at a summer fair sells spring water, orange juice and lemonade. The probability that a randomly selected customer will choose spring water is 0,2 and orange juice is 0,35.

1. What is the probability that a randomly selected customer will choose lemonade?
2. Find
 - a) the probability that three randomly selected customers all choose spring water,
 - b) the probability that three randomly selected customers all choose the same drink,
 - c) the probability that three randomly selected customers all choose spring water, given that all three customers choose the same drink. The answer will be rounded to the nearest thousandth.
3. Four customers are selected at random. Find the probability that exactly one will choose lemonade. The answer will be rounded to the nearest thousandth.

Exercise 2:

A deposit of \$ 2,000 is made into a fund with an annual interest rate of 5 %.

If the interest is compounded continuously, how many years does it take to triple the deposit amount?