**Assignments: Decision making under uncertainty and risks**

1. Define any decision-making problem under uncertainty and risks you want and create the matrix of payment for it.
2. The person is thinking on the selling the roses on Saturdays evenings to couples. The selling price (sp) is 5 €. The purchase price (pp) is 3€ per rose. The demand that is expected is in the interval between 8 and 12 roses. The person can prepare for selling (purchase) minimally 8 roses and maximally 15 roses.

* Present the matrix of the payment for this case. (Hint: The variable that is under person’s control (alternatives in the process of decision-making is the purchase for selling and the variable that is not under his/control (events) is demand. The payment can be calculated according to the simple formula (P=sp\*sellingquantity – pp\*purchasequantity). The person does not pay taxes.
* Apply methods for decision making under uncertainty and risks.

1. Game!  
   Will you accept to play game ABC and if yes, which one – A, B or C? Playing the game costs 20€.

A: You earn 15€ for not to do anything.

B: You throw a dice:

* If you get an even number, you earn 100€.
* If you gen an odd number, you must pay 50€.

C: You throw the dice:

* If you get an even number, you must throw a dice again:
  + If you get a prime number, you earn 300€
  + If you get a complex number, you must pay 350€
* If you get an odd number, you earn 20€.

1. The wheel of fortune in a TV game has 10 fields. Three fields carry 5,000€ each, four fields each 2,500€, and three fields 1,000€ each. Marko won 2,000€ in qualifying questions for this game. Marko can take the money he currently has or spin the wheel (then loses the current money). What 7 methods for decision making under uncertainty and risks suggest deciding?