**Mathematics in Economics – lecture 8 – repetition – 10 points reward**

1. Find extremes point of the function *y* = 4*x*3 – 6*x*2 + 15. 3 points

2. Draw in the *x-y* plane the domain of the function of two variables: *f*(*x*,*y*) = log(*x*2 + *y*2 – 64). 2 points

3. Find partial derivatives of the first and second order of the function: *f*(*x*,*y*) = 4*x*3+ 6*xy* + sin*y* 2 points

4. Find extremes of the function of two variables: *f*(*x*,*y*) = *x*3 + *y*3 – 3*xy*. 3 points