**Czech Technical University in Prague – Faculty of Biomedical Engineering**

**Modeling and Simulation – Summer Term 2014 – Michel Kana, PhD**

**Entrance Test – 18.2.2014**

**Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Resolve the following equations**
2. **Compute the following matrix operations**
3. **Matlab: compute the determinant of the following matrix**

A =

16 3 2 13

5 10 11 8

9 6 7 12

4 15 14 1

1. **Matlab: plot the function y = x3 for x in the interval [-1 .. 1] and copy the graph on this paper**
2. **Simulink: model the following system and copy the diagram on this paper**