

# Topics in Applied Algebraic Geometry

## Homework 2 (Sandra)

due date: Tuesday 2017.05.9

**Problem 1.** Describe as much as you can the Segre-embedding  $\mathbb{P}^1 \times \mathbb{P}^2 \rightarrow \mathbb{P}^5$  and its Chow ring. (Motivate all your writing!)

**Problem 2.** Use intersection theory to show that any regular map from  $\mathbb{P}^n$  to a projective variety of dimension  $m < n$  (for ex.  $\mathbb{P}^m$ ) must be constant.