Exercise 1. Do Exercise 3.15 of Chapter 1 of Hartshorne.

Exercise 2. Do Exercise 5.3.1 of the lecture notes.

Exercise 3. Let $X$ be a prevariety, and $Z \subseteq X$ an irreducible closed subset. Show that $\dim X = \dim Z + \operatorname{codim}_X Z$.

Exercise 4. Do Exercise 6.1.8 of the lecture notes.