Problem Set 2

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1 | Exercises

Exercise 1.1 (Gathmann 2.17).
Find the irreducible components of

$$V(x - yz, xz - y^2) \subset \mathbb{A}^3/\mathbb{C}.$$

Exercise 1.2 (Gathmann 2.18).
Let $X \subset \mathbb{A}^n$ be an arbitrary subset and show that $V(I(X)) = \overline{X}$.

Exercise 1.3 (Gathmann 2.21).
Let $\{U_i\}_{i \in I} \rightrightarrows X$ be an open cover of a topological space with \$

Exercise 1.4 (Gathmann 2.22).

Exercise 1.5 (Gathmann 2.23).

Exercise 1.6 (Gathmann 2.24).