



## Definition

Let  $\Sigma$  be a finite set (alphabet). A *formal language* (or *language*) is a subset of finite-length strings of elements of  $\Sigma$ .

## Examples

Let  $\Sigma = \{0, 1\}$ . Then  $\emptyset$  is a language, as are the sets  $\{0, 1\}$  and  $\{01, 001, 111, 1101010\}$ .

## Notation

We denote the finite strings of  $\Sigma$  by  $\text{str}(\Sigma)$ . Other common notation is  $\Sigma^*$ , which we avoid in these sheets for its collision with adjoints.



