



## SET DIFFERENCES

### Why

We want to consider the elements of one set which are not contained in another set.

### Definition

Let  $A$  and  $B$  denote sets. The *difference* between  $A$  and  $B$  is the set  $\{x \in A \mid x \notin B\}$ . It is not necessary that  $B \subset A$ .

### Notation

We denote the difference between  $A$  and  $B$  by  $A - B$ .

### Properties

The following are straightforward.<sup>1</sup>

**Proposition 1.**  $A - \emptyset = A$

**Proposition 2.**  $A - A = \emptyset$

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<sup>1</sup>Accounts will appear in future editions.



