

Examples and Problems

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Example 1.6

Example 1.6 gives a bunch of true statements with explanations.
May emphasize the difference between the notations $\in$ and $\subseteq$. Let's look at some of them.

1.6.1

$$1 \not\in \{1, \{1\}\}$$

1.6.3

$$\{1\} \in \{1, \{1\}\}$$

1.6.4

$$\{1\} \subseteq \{1, \{1\}\}$$

1.6.10

$$\emptyset \subseteq \mathbb{N}$$

1.6.12

$$\mathbb{N} \not\subseteq \{\mathbb{N}\}$$

Problem 1.3.9

Write out the elements of the set $\{X : X \subseteq \{3, 2, a\} \text{ and } |X| = 2\}$