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

$1 \not\subseteq \{1, \{1\}\}$

1.6.3

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

1.6.4

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

1.6.10

$\emptyset \subseteq \mathbb{N}$

1.6.12

$\mathbb{N} \not\subset \{\mathbb{N}\}$

Problem 1.3.9

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