

Section 1.1: cont'd

Wednesday, September 30, 2015
11:30 AM

Assign 0 due on Tues, Oct 6

at 11:59 pm

Assign 1 due on Tues, Oct 13

at 11:59 pm

set-builder notation:

$$A = \{ x \mid \underbrace{x \text{ is an even natural number}}_{\substack{\text{condition or statement about} \\ \text{the allowed values of } x}} \}$$

\uparrow
the set of all x

\nwarrow such that

example: write the set $\{4, 5\}$ in set-builder notation
(note: answers may vary)

$$\{4, 5\} = \{ x \mid x \text{ is a natural number between but not including } 3 \text{ and } 6 \}$$

$$= \{ y \mid y \text{ is } 4 \text{ or } 5 \}$$

$$= \{ z \mid z \in \mathbb{Z} \text{ and } 3 < z < 6 \}$$

$$= \{ q \mid q \text{ is a single-digit natural number that begins with the letter "4"} \}$$