$$S = \{x_n \mid n \in \mathbb{N}\} \qquad S = \{x_n \mid n \in \mathbb{N}\} \tag{1}$$

$$S = \left\{x_n \mid \frac{1}{n} \in \mathbb{N}\right\} \quad S = \left\{x_n \mid \frac{1}{n} \in \mathbb{N}\right\} \tag{2}$$