

$$A_1 = \{x \in \mathbb{R}^{\mathbb{N}} : x = (0, \dots, 0, x_{n+1}, x_{n+2}, \dots)\}$$

$$A_2 = \{x \in \mathbb{R}^{\mathbb{N}} : x = (x_1, \dots, x_n, 0, 0, \dots)\}$$

$$A_3 = \{x \in \mathbb{R}^{\mathbb{N}} : \lim_{i \rightarrow \infty} x_i = a\} \text{ for } a \in \mathbb{R}$$

$$A_4 = \{x \in \mathbb{R}^{\mathbb{N}} : \lim_{k \rightarrow \infty} \frac{1}{k} \sum_{i=1}^k x_i = a\} \text{ for given } a \in \mathbb{R}$$

$$A_5 = \{x \in \mathbb{R}^{\mathbb{N}} : \lim_{i \rightarrow \infty} x_{2i} = a\} \text{ for given } a \in \mathbb{R}$$

$$A_6 = \{x \in \mathbb{R}^{\mathbb{N}} : x_{2k} = 0 \text{ up to finitely many } k\}$$

$$A_7 = \{x \in \mathbb{R}^{\mathbb{N}} : x_{n+5} = a\} \text{ for given } a \in \mathbb{R}$$

$$A_8 = \{x \in \mathbb{R}^{\mathbb{N}} : x_i \in \mathbb{N} \ \forall i \in \mathbb{N}\}$$

$$A_9 = \{x \in \mathbb{R}^{\mathbb{N}} : x_1 + \dots + x_n = a\} \text{ for given } a \in \mathbb{R}$$

$$A_{10} = \{x \in \mathbb{R}^{\mathbb{N}} : \sum_{i=1}^{\infty} x_i = a\} \text{ for given } a \in \mathbb{R}$$

$$A_{11} = \{x \in \mathbb{R}^{\mathbb{N}} : \limsup_{k \rightarrow \infty} \sum_{i=1}^k x_i = a\} \text{ for given } a \in \mathbb{R}$$

$$A_{12} = \{x \in \mathbb{R}^{\mathbb{N}} : \limsup_{k \rightarrow \infty} \sum_{i=1}^k x_i \geq 0\}$$

$$A_{13} = \{x \in \mathbb{R}^{\mathbb{N}} : \sum_{i=1}^{\infty} x_i < \infty\}$$

$$A_{14} = \{x \in \mathbb{R}^{\mathbb{N}} : \limsup_{k \rightarrow \infty} \sum_{i=1}^k x_i = \infty\}$$

$$A_{15} = \{(0, 0, 0, \dots)\}$$

$$\begin{aligned}
A_1 &= \{x \in \mathbb{R}^{\mathbb{N}} : x = (0, \dots, 0, x_{n+1}, x_{n+2}, \dots)\} && \in \mathcal{S}_n \setminus \mathcal{S}_{n+1} \\
A_2 &= \{x \in \mathbb{R}^{\mathbb{N}} : x = (x_1, \dots, x_n, 0, 0, \dots)\} && \in \mathcal{T}_n \setminus \mathcal{T}_{n+1} \\
A_3 &= \{x \in \mathbb{R}^{\mathbb{N}} : \lim_{i \rightarrow \infty} x_i = a\} \text{ for } a \in \mathbb{R} && \in \mathcal{I} \\
A_4 &= \{x \in \mathbb{R}^{\mathbb{N}} : \lim_{k \rightarrow \infty} \frac{1}{k} \sum_{i=1}^k x_i = a\} \text{ for given } a \in \mathbb{R} && \in \mathcal{I} \\
A_5 &= \{x \in \mathbb{R}^{\mathbb{N}} : \lim_{i \rightarrow \infty} x_{2i} = a\} \text{ for given } a \in \mathbb{R} && \in \mathcal{T}_n \setminus \mathcal{I} \\
A_6 &= \{x \in \mathbb{R}^{\mathbb{N}} : x_{2k} = 0 \text{ up to finitely many } k\} && \in \mathcal{T} \setminus \mathcal{I} \\
A_7 &= \{x \in \mathbb{R}^{\mathbb{N}} : x_{n+5} = a\} \text{ for given } a \in \mathbb{R} && \in \mathcal{S}_n \\
A_8 &= \{x \in \mathbb{R}^{\mathbb{N}} : x_i \in \mathbb{N} \ \forall i \in \mathbb{N}\} && \in \mathcal{S} \setminus \mathcal{T} \\
A_9 &= \{x \in \mathbb{R}^{\mathbb{N}} : x_1 + \dots + x_n = a\} \text{ for given } a \in \mathbb{R} && \in \mathcal{S}_n \setminus \mathcal{T}_n, \in \mathcal{S}_n \setminus \mathcal{S}_{n+1} \\
A_{10} &= \{x \in \mathbb{R}^{\mathbb{N}} : \sum_{i=1}^{\infty} x_i = a\} \text{ for given } a \in \mathbb{R} && \in \mathcal{S} \setminus \mathcal{T} \\
A_{11} &= \{x \in \mathbb{R}^{\mathbb{N}} : \limsup_{k \rightarrow \infty} \sum_{i=1}^k x_i = a\} \text{ for given } a \in \mathbb{R} && \in \mathcal{S} \setminus \mathcal{T} \\
A_{12} &= \{x \in \mathbb{R}^{\mathbb{N}} : \limsup_{k \rightarrow \infty} \sum_{i=1}^k x_i \geq 0\} && \in \mathcal{S} \setminus \mathcal{T} \\
A_{13} &= \{x \in \mathbb{R}^{\mathbb{N}} : \sum_{i=1}^{\infty} x_i < \infty\} && \in \mathcal{I} \\
A_{14} &= \{x \in \mathbb{R}^{\mathbb{N}} : \limsup_{k \rightarrow \infty} x_i = \infty\} && \in \mathcal{I} \\
A_{15} &= \{(0, 0, 0, \dots)\} && \in \mathcal{S} \setminus \mathcal{T}
\end{aligned}$$