Which of the following are (recursive) definitions of the set of integers $\mathbb{Z}$? (Select True/False for each one.)

1.

Basis Step: $5 \in \mathbb{Z}$
Recursive Step: If $x \in \mathbb{Z}$, then $x + 1 \in \mathbb{Z}$ and $x - 1 \in \mathbb{Z}$

2.

Basis Step: $0 \in \mathbb{Z}$
Recursive Step: If $x \in \mathbb{Z}$, then $x + 1 \in \mathbb{Z}$ and $x - 1 \in \mathbb{Z}$ and $x + 2 \in \mathbb{Z}$ and $x - 2 \in \mathbb{Z}$

3.

Basis Step: $0 \in \mathbb{Z}$
Recursive Step: If $x \in \mathbb{Z}$, then $x + 2 \in \mathbb{Z}$ and $x - 1 \in \mathbb{Z}$

4.

Basis Step: $0 \in \mathbb{Z}$
Recursive Step: If $x \in \mathbb{Z}$, then $x + 1 \in \mathbb{Z}$ and $x + 2 \in \mathbb{Z}$