For each of the following five questions, four possible answers are provided, but only one of them is correct: write the corresponding letter in the box! (Recall: injective = one-to-one; surjective = onto.)

1] Let \( f : S \to T \) be a function. Let \( s_1 \) and \( s_2 \) be elements of \( S \) such that \( s_1 = s_2 \).
What do we need to know about \( f \) to conclude that \( f(s_1) = f(s_2) \)?
A] Nothing: this is true for all functions \( f \).
B] We need \( f \) to be injective.
C] We need \( f \) to be surjective.
D] We need \( f \) to be bijective.

2] Let \( f : S \to T \) be a function. Let \( s_1 \) and \( s_2 \) be elements of \( S \) such that \( f(s_1) = f(s_2) \).
What do we need to know about \( f \) to conclude that \( s_1 = s_2 \)?
A] Nothing: this is true for all functions \( f \).
B] We need \( f \) to be injective.
C] We need \( f \) to be surjective.
D] We need \( f \) to be bijective.

3] Let \( f : S \to T \) be a function. Let \( t \) be an element of \( T \).
What do we need to know about \( f \) to conclude that \( t = f(s) \) for some \( s \in S \)?
A] Nothing: this is true for all functions \( f \).
B] We need \( f \) to be injective.
C] We need \( f \) to be surjective.
D] We need \( f \) to be bijective.

4] Let \( f : S \to T \) be a function. Let \( t \) be an element of \( T \).
What do we need to know about \( f \) to conclude that \( t = f(s) \) for one unique \( s \in S \)?
A] Nothing: this is true for all functions \( f \).
B] We need \( f \) to be injective.
C] We need \( f \) to be surjective.
D] We need \( f \) to be bijective.

5] Let \( f : S \to T \) be a function. Let \( s \) be an element of \( S \).
What do we need to know about \( f \) to conclude that \( f(s) = t \) for one unique \( t \in T \)?
A] Nothing: this is true for all functions \( f \).
B] We need \( f \) to be injective.
C] We need \( f \) to be surjective.
D] We need \( f \) to be bijective.