

Exercise 49

The table below lists the NBA championship winners for the years 2001 to 2012.

Year	Winner
2001	LA Lakers
2002	LA Lakers
2003	San Antonio Spurs
2004	Detroit Pistons
2005	San Antonio Spurs
2006	Miami Heat
2007	San Antonio Spurs
2008	Boston Celtics
2009	LA Lakers
2010	LA Lakers
2011	Dallas Mavericks
2012	Miami Heat

- Consider the relation in which the domain values are the years 2001 to 2012 and the range is the corresponding winner. Is this relation a function? Explain why or why not.
- Consider the relation where the domain values are the winners and the range is the corresponding years. Is this relation a function? Explain why or why not.

Solution

Part a.

The relation is a function because there's one and only one winner for any given year. In other words, the vertical line test is satisfied.

Part b.

The relation is not a function because there's potentially more than one year for any given team. In other words, the vertical line test is not satisfied.