

Problem Set: 4.2

Problems 1 and 2 refer to Display 4.24, which shows the number of Democratic U.S. Senators in Congress during some of the years from 1953 to 2005.

1. Would the table be more helpful if it indicated the number of Democratic Senators *each year*, rather than *every two years*? Explain.

| Congress | Senate Democrats |
|----------|------------------|
| 1953 | 47 |
| 1955 | 48 |
| 1957 | 49 |
| 1959 | 65 |
| 1961 | 64 |
| 1963 | 66 |
| 1965 | 68 |
| 1967 | |
| 1969 | |
| 1971 | 54 |
| 1973 | 56 |
| 1975 | 60 |
| 1977 | 61 |
| 1979 | 58 |
| 1981 | |
| 1983 | 46 |
| 1985 | 47 |
| 1987 | 55 |
| 1989 | 55 |
| 1991 | 56 |
| 1993 | 57 |
| 1995 | 48 |
| 1997 | 45 |
| 1999 | 45 |
| 2001 | 50 |
| 2003 | 48 |
| 2005 | 44 |

Number of Senate Democrats

Display 4.24

2. Suppose you researched this data for an assignment due today and, just as you are about to hand it in, you realize that you forgot to record the data for 1967, 1969, and 1981. Use linear interpolation to estimate the number of Senators for those years and plot these missing points on a copy of the graph shown in Display 4.25.