The Five Number Summary and Boxplots

1. Given the following data:

   | 20 | 45 | 52 | 56 | 64 | 68 | 62 | 74 | 78 | 79 | 98 |

   99   100

   Find the five number summary

2. Given the following data:

   | 5 | 7 | 8 | 12 | 13 | 20 | 21 | 22 | 24 | 80 | 85 |

   90   92   100

   Find the five number summary

3. The median age at first marriage from 1960-2006 is given in the following table

Year	Males	Females
1960	22.8	20.3
1970	23.2	20.8
1980	24.7	22.0
1990	26.1	23.9
1993	26.5	24.5
1994	26.7	24.5
1995	26.9	24.5
1996	27.1	24.8
1997	26.8	25.0
1998	26.7	25.0
1999	26.9	25.1
2000	26.8	25.1
2001	26.9	25.1
2002	26.9	25.3
2003	27.1	25.3
2005	27.0	25.5
2006	27.5	25.9

source: www.factmonster.com

a) Find the five number summary, construct a box plot, and describe the distribution for males

b) Find the five number summary, construct a box plot, and describe the distribution for females

4. The following data is the homicide rate in the United States for the years 1980 through 2007 (per 100,000):

Year	Homicide Rate
1980	10.2
1981	9.8
1982	9.1
1983	8.3
1984	7.9
1985	7.9
1986	8.6
1987	8.3
1988	8.4
1989	8.7
1990	9.4
1991	9.8
1992	9.3
1993	9.5
1994	9
1995	8.2
1996	7.4
1997	6.8
1998	6.3
1999	5.7
2000	5.5
2001	5.6
2002	5.6
2003	5.7
2004	5.5
2005	5.9
2006	6.1
2007	5.9

Source: Crime in the United States, 2008. FBI, Uniform Crime Reports

Find the five number summary and the boxplot of the homicide rate.

5. Given the following numbers:

25   50   56   56   57   58   59   61   63   70   100

100   100   100   105

Find the five number summary, construct a box plot, and describe the distribution