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GRAPHICAL ATTRIBUTES: Stemplots – *7 Deadly Days*

Ages of 460 U.S. Gun Deaths Occurring in May, 1989

All Categories: Homicide, Suicide, Accident, Self-Defence

0	2	(1)
0	9	(1)
1	2444	(4)
1	55556 66666 67777 77777 88888 88888 88889 99999 99999 9	(46)
2	00000 00000 00000 00011 11111 11112 22222 22222 22222 23333 33333 33334 44444 44444 44444 44444 44	(82)
2	55555 55555 55566 66666 66666 66677 77777 77777 77888 88888 88888 88999 99999 9	(66)
3	00000 00001 11111 11111 12222 22223 33333 33333 33444 44444 44444 4444	(59)
3	55555 55555 55666 66666 77777 77777 78888 88888 99999	(45)
4	00000 00000 11111 22222 22222 34444 44	(32)
4	55566 66666 77777 78888 88	(22)
5	00001 22222 22344 4	(16)
5	56666 67778 8899	(14)
6	01111 12233 444	(13)
6	55555 55566 67777 77799 9999	(24)
7	00000 11122 334	(13)
7	55566 77778 999	(13)
8	11234	(5)
8	6777	(4)
9		(–)
9		(–)
		(460)

Homicide

0	2	(1)
0		(–)
1	44	(2)
1	56666 77778 88888 88999 99	(22)
2	00000 00000 00001 11222 22222 22333 33333 44444 4444	(44)
2	55555 55556 66666 66667 77777 78888 88999 999	(38)
3	00000 11111 22222 33444 44444 4	(26)
3	55555 66667 77788 88889 99	(22)
4	00011 22222 24444	(15)
4	55666 77788	(10)
5	00224 4	(6)
5	788	(3)
6	011	(3)
6	67	(2)
7		(–)
7	9	(1)
8		(–)
8		(–)
9		(–)
9		(–)
		(195)

Accident

0		(–)
0	9	(1)
1	2	(1)
1	56777 9	(6)
2	11233	(5)
2	788	(3)
3	0344	(4)
3	7	(1)
4		(–)
4		(–)
5		(–)
5		(–)
6		(–)
6		(–)
7		(–)
7		(–)
8		(–)
8		(–)
9		(–)
9		(–)
		(21)

Suicide

0		(–)
0		(–)
1	4	(1)
1	55667 78888 88999 999	(18)
2	00001 11112 22223 33444 44444 444	(28)
2	55556 66677 77778 88888 99	(22)
3	00011 11112 22333 33333 34444	(25)
3	55555 66667 77777 88899	(20)
4	00000 11122 22344	(15)
4	56677 888	(8)
5	01222 2234	(9)
5	56666 77899	(10)
6	11122 33444	(10)
6	55555 55566 77777 79999 99	(22)
7	00000 11122 334	(13)
7	55566 77778 99	(12)
8	11234	(5)
8	6777	(4)
9		(–)
9		(–)
		(222)

Self-Defence

0		(–)
0		(–)
1		(–)
1		(–)
2	12444	(5)
2	689	(3)
3	1344	(4)
3	55	(2)
4	00	(2)
4	6678	(4)
5	0	(1)
5	6	(1)
6		(–)
6		(–)
7		(–)
7		(–)
8		(–)
8		(–)
9		(–)
9		(–)
		(22)

REFERENCE: *7 Deadly Days*, TIME MAGAZINE, July 17, 1989, pages 10-37.

(*continued overleaf*)

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Background: The data overleaf on page HL32.1 are taken from a feature article in *Time Magazine* with the by-line: *In one ordinary week, 464 people died in America's continuing epidemic of gunfire*; the stemplots contain only 460 observations because the age was missing in four cases. The 25 pages of photographs and brief biographies of the victims are introduced with the following comments:

> They are the commonplace tragedies that occur every day in communities across the U.S. The smouldering anger between a husband and wife ignites and ends with a pistol shot. The suffocating weight of depression vanishes, with gunfire, into the imagined peace of death. A hunting trip turns tragic, and a family is destroyed. The stupidity of playing with a loaded weapon leaves a young boy dead. The momentary incivility of a pair of barroom brawlers results in bloody death.
>
> Events like these happen so often that Americans' sense of horror and outrage has been numbed. Death by gunfire has become nearly as banal in the U.S. as auto fatalities; shootings are so routine that they are sometimes ignored by the local news. Only by coming face to face with the needless victims does the wastefulness sink in.

Two other matters from this introduction are as follows:

- statistically, the situation has improved slightly in this decade; while gunshot deaths have roughly doubled since 1938, they dropped from 14.8 per 100,000 population in 1980 to 13.7 in 1986, the last year for which complete figures are available.
- the breakdown by *day* (**M**onday to **S**unday) of the 464 deaths was:

M	**T**	**W**	**T**	**F**	**S**	**S**
MAY 1	MAY 2	MAY 3	MAY 4	MAY 5	MAY 6	MAY 7
74 dead	60 dead	66 dead	71 dead	51 dead	66 dead	76 dead

1. What matter(s) of interest are indicated by the stemplots given overleaf on page HL32.1 about:
   - the overall data set of 460 ages;
   - *differences* among the four categories?

2. Suggest a possible explanation for the 'spike' at ages 65-69 in the plot for 'All Categories'.

3. Explain whether these data, as they are presented overleaf on page HL32.1, provide information relevant to the issues involved in gun control in society, with reference to:
   - the U.S.A.; ● Canada.

4. Why do the plots given overleaf on page HL32.1 use *two* (rather than just one) stem for each 10-year age group?

5. For 'All Categories' and each of the four individual categories, find:
   - the *median* age of death;
   - the *modal* (*i.e.*, most common) age of death.

   How well does each summary statistic serve as a measure of the *location* of the relevant distribution of ages? Explain briefly.

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