

Stem-and-Leaf Plots

| Enrollment Trends 1987-88 to 1997-98 | | | | |
|--------------------------------------|----------------------|----------------------|-------------------------------|---------|
| | 1987 – 1988 | 1997 – 1998 | | |
| Region L1 | Total Students L2 | Total Students L3 | Total Students Δ L4 | |
| 1 | Edinburg | 222,668 | 284,614 | 61,946 |
| 2 | Corpus | 108,956 | 112,212 | 3,256 |
| 3 | Victoria | 56,229 | 57,730 | 1,501 |
| 4 | Houston | 659,516 | 828,262 | 168,746 |
| 5 | Beaumont | 85,989 | 87,565 | 1,576 |
| 6 | Huntsville | 100,438 | 128,360 | 27,922 |
| 7 | Kilgore | 146,063 | 158,973 | 12,910 |
| 8 | Mt. Pleasant | 52,752 | 55,766 | 3,014 |
| 9 | Wichita Falls | 40,517 | 42,388 | 1,871 |
| 10 | Richardson | 426,631 | 549,212 | 122,581 |
| 11 | Fort Worth | 286,784 | 380,827 | 94,043 |
| 12 | Waco | 109,388 | 132,990 | 23,602 |
| 13 | Austin | 180,493 | 247,989 | 67,496 |
| 14 | Abilene | 48,207 | 50,444 | 2,237 |
| 15 | San Angelo | 48,950 | 52,654 | 3,704 |
| 16 | Amarillo | 77,765 | 80,711 | 2,946 |
| 17 | Lubbock | 82,632 | 82,944 | 312 |
| 18 | Midland | 79,417 | 84,365 | 4,948 |
| 19 | El Paso | 132,013 | 153,710 | 21,697 |
| 20 | San Antonio | 279,508 | 319,797 | 40,289 |

1. Begin with the data set in L2 (1987-1988 Total Student Population). Sort L2 in ascending order. Decide which numbers will serve as the stem. Will you round to the nearest hundreds place, thousands place, ten-thousands place, or hundred-thousands place?
2. Decide which numbers will serve as the leaves. List the leaves for L2 on the left side of the stem.
3. Use the same stem to create a stem-and-leaf plot for the data in L3 (1997-1998 Total Student Population). List the leaves for L3 on the right side of the stem.
4. What does the stem-and-leaf plot tell us about the data in L2 and L3 in terms of student population distribution?
5. Using the stem-and-leaf plots, determine the *mean*, *median*, and *1st* and *3rd* quartile values for the two sets of data.