## Histograms



a. What is the bin width of each histogram above?

Upper Left: 15 Upper Right: 10 Lower Left: 3 Lower Right: 4

b. Which histogram could not come from the same data set as the other three? Explain why.

Lower Left because the point around 240 is missing

| 112 | 79  | 104 | 95  | 87  | 113 |
|-----|-----|-----|-----|-----|-----|
| 101 | 88  | 76  | 99  | 118 | 87  |
| 104 | 93  | 71  | 92  | 106 | 85  |
| 108 | 81  | 97  | 105 | 93  | 86  |
| 92  | 104 | 89  | 96  | 83  | 95  |

## 3. The golf scores for the first 30 members of the Belmont Country Club are given below:

## Golf Scores for first 30 members of the Belmont Country Club



4. Ignacio kept a log of the amount of time he spent doing homework and watching television during 20 days of school.

| Day              | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 |
|------------------|----|----|----|----|----|----|----|----|----|----|
| Homework (min)   | 4  | 10 | 40 | 11 | 55 | 46 | 46 | 23 | 57 | 28 |
| Television (min) | 78 | 30 | 15 | 72 | 25 | 30 | 90 | 40 | 35 | 56 |
|                  |    |    |    |    |    |    |    |    |    |    |
| Day              | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Homework (min)   | 65 | 58 | 52 | 38 | 38 | 39 | 45 | 27 | 41 | 44 |
| Television (min) | 12 | 5  | 95 | 27 | 38 | 50 | 10 | 42 | 60 | 34 |

a. Create two histograms, one showing the amount of time spent doing homework, and one showing the amount of time watching television.



Which distribution has a greater variation? TV Watching, larger Range

b. Does Ignacio watch television the same amount of time he does homework? If no, what conclusion can you make based on the data given? Explain your reasoning.

No, the maximum amount of television is larger than the homework. There were 5 times he watched more tv longer than any time he did his homework. I would guess the averages are similar though just by looking at the histogram. But there is other evidence to show he watches more tv (ie range)

5. Carl and Bethany roll a pair of dice 1000 times and keep track of the sum on the two dice. The frequency of each sum is listed below .

| Sum | Frequency |  |  |  |  |
|-----|-----------|--|--|--|--|
| 2   | 26        |  |  |  |  |
| 3   | 56        |  |  |  |  |
| 4   | 83        |  |  |  |  |
| 5   | 110       |  |  |  |  |
| 6   | 145       |  |  |  |  |
| 7   | 162       |  |  |  |  |
| 8   | 149       |  |  |  |  |
| 9   | 114       |  |  |  |  |
| 10  | 73        |  |  |  |  |
| 11  | 61        |  |  |  |  |
| 12  | 21        |  |  |  |  |



- a. Graph the histogram using a bin width of one.The bins above are not labeled correctly. They should be 2, 3, 4, ..., 12.
- b. Explain why the shape of the histogram is mound-shaped.

Rolling a sum of a seven has the most possibilities.