## Hardest and Easiest Questions

## The hardest questions were:

- Question \#5 (lowest number of motor vehicle crash deaths)
- Question \#17 (hierarchical clustering)
- Question \#12 (rainbow colormap)
- Question \#13 (HSV color space)

The easiest (most liked) questions were:

- Question \#11 (correlation)
- Question \#16 (coloring for the blind)
- Question \#19a (parallel coordinates)
- Question \#14 (green vs blue)

| 1 | 2 | 3 | 4 | 5 | 6 a | 6b | 6c | 7 | 8 | 9a | 9b | 9c | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19a | 19b | 19c | 20 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7.47 | 5.2 | 7.19 | 3.69 | 1.35 | 6.64 | 7.78 | 5.6 | 5.06 | 6.16 | 6.41 | 6.07 | 4.05 | 4.85 | 9.18 | 3.92 | 3.5 | 9.51 | 6.38 | 10.1 | 2.42 | 4.4 | 9.08 | 6.13 | 5.66 | 8.94 |

## GRADING CRITERIA

Performance-based, not curved by distribution

- want students to possess a certain degree of VIS knowledge
- this knowledge has been measured by the exam questions

Based on 26 (sub)questions, all gave 10 points, so max $=260$

- an A student would answer at least 20 (3/4) questions 85\% correctly to reach 164 points or more
- a B student would answer at least 13 (1/2) questions $85 \%$ correctly to reach 109 points or more
- a C student would answer at least 7 (1/4) questions $85 \%$ correctly to reach 55 points or more
- an $\mathbf{F}$ student would not be able to answer at least 7 (1/4) questions $85 \%$ correctly and so would reach less than 55 points
- plus and minus refinements would apply linearly within each range
- the maximum number of points achieved was 228 (average 146)


## POINT DISTRIBUTION



