

3.3 Percentiles and Box-and-Whisker Plots

Percentile Given n th percentile of a distribution, $n\%$ of the data fall at or below the given value

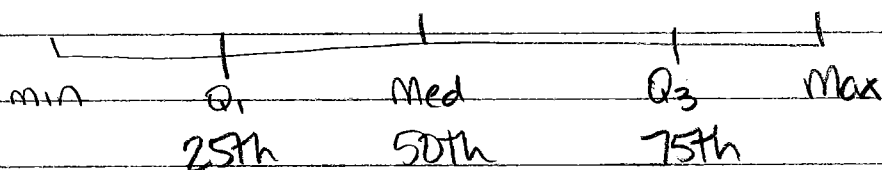
Example 1

(A) If you score in the 73rd percentile, what percent of students score higher?
 $100 - 73 = \underline{27\%}$

(B) If you score a 87% on the test Friday, what percentile will you end up in?

unknown need all scores

Quartiles



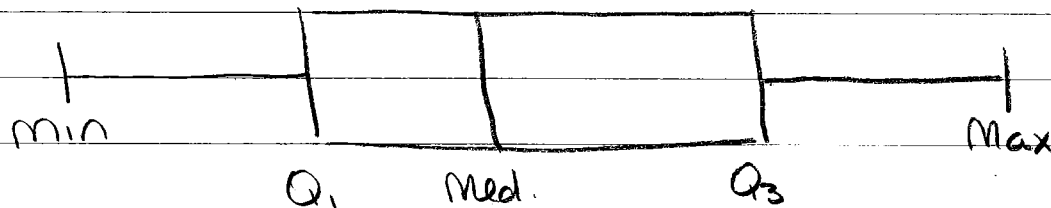
Finding Quartiles

- ① order data, find the median
- ② $Q_1 =$ median of the lower half
↳ not including the median
- ③ $Q_3 =$ median of the top half

Interquartile Range (IQR) = $Q_3 - Q_1$

Box-and-whisker Plots

Five-number summary



Example 2 (7)