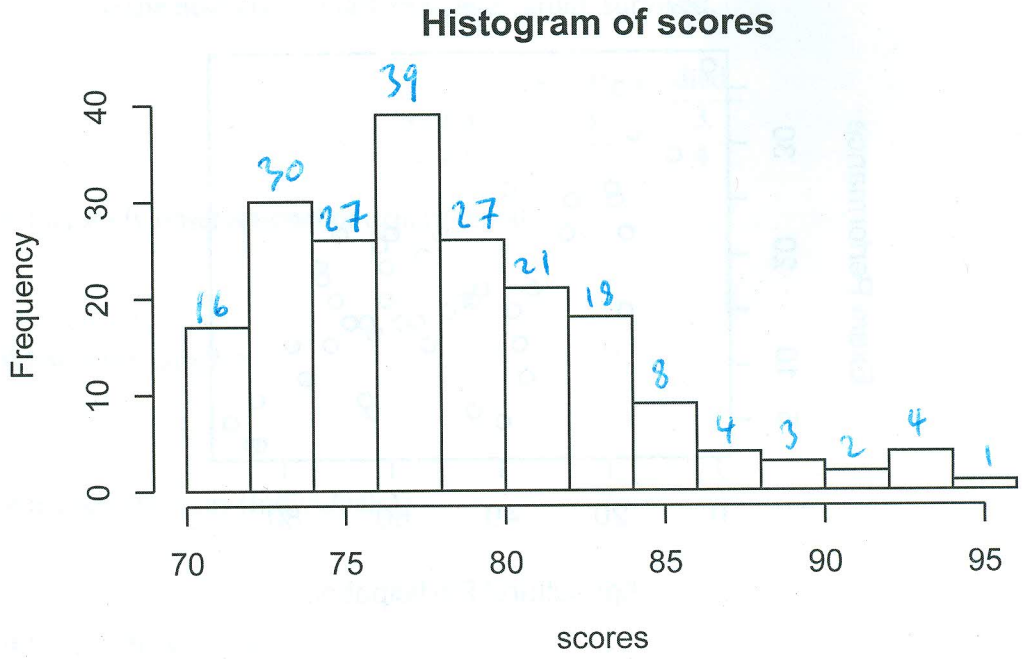
Q4. (10 points) A teacher has given an exam to 200 students, whose scores are shown in the histogram below. Please assume that the scores are almost all non-integer (this is meant to simplify the analysis by removing inclusive/exclusive concerns).



(a) Estimate the proportion of students who scored between 70 and 74.

$\approx \frac{46}{200}$ 23%

(b) Estimate the median.

≈ 77

(c) Is the mean higher or lower than the median? Why?

The mean is higher than the median; the distribution is skewed right.

(d) Estimate the first quartile, Q_1.

≈ 74.5

(e) Estimate the third quartile, Q_3.

≈ 81

(f) Which of the following choices is the best estimate of the standard deviation.

- ○ 1
- ● 5
- ○ 30
- ○ 80
- ○ 95