1. using functions

Take this vector and answer the following questions by using programming/code:

```
vector <- c(19,3,8,7,24,43,89,76,17,32,8,9,350,56)
```

1. What is the lowest number of the vector?

2. What is the mean value? What is the median value? How far are they apart from each other?

3. How big is the range of the vector?

2. calculator Function

We want a function that...

- calculates the sum of the square roots of two numbers,
- rounds it to two digits
- and then does a check: when the result is bigger than a third number return: bigger then z, otherwise return: smaller then z
- [hint: check out if-else-conditions]
- check by using x=10, y=20 and z=40

3. loading data into R

1. first load the data-set Exam_Score (can be found at OpenOlat) into R using package-functions of readr (the data-set is in csv-format).

2. load the data-set Cal_Housing from our package "sozoekds" (load & install this package first, then load the data-set)

4. descriptive analysis (for Exam data)

- How many variables are there?
- Type of those variables?
- Calculations: Mean, Median, Range - what do you think is helpful (and why) to get a good overview over your data
- Are there other ways to get an overview over the data?

5. New variables - for the exam data:

- Transform ethnic group to factor
- calculate the total points in all tests per person
- use 300 points as 100% and calculate the percentage of answers that the student got right
- define a "passing" variable using 50% as the boundary for passing