



MATHEMATICAL PROCESSING ABILITIES BETWEEN MALES AND FEMALES

HARSH MAHAJAN – J027

AKASH PATIL-J036

SHANKH SURI-J052

TAZEEM KHAN-J068

HYPOTHESIS

This group's main motive was to prove that the mathematical processing of males was equal to that of the females.

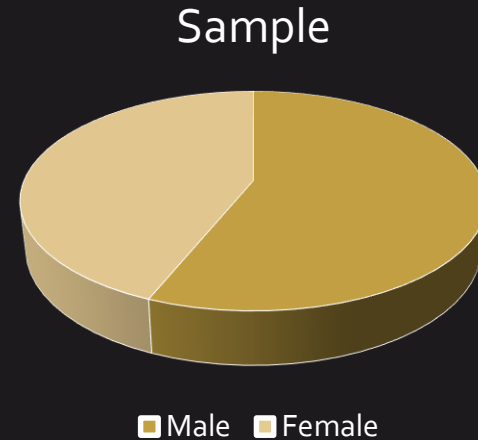
How did we try to find the answer for the above hypothesis?

We conducted a survey in and around our college physically by asking people a basic but tricky maths question. The question was to calculate simple math series $1+1=2, 2+2=4, 4+4=8, 8+8=16$ and so on.

We had two criterias, for the question one was the the answer must be right and the answers must not have a gap of more than 5 seconds. The stages are as shown on the right.

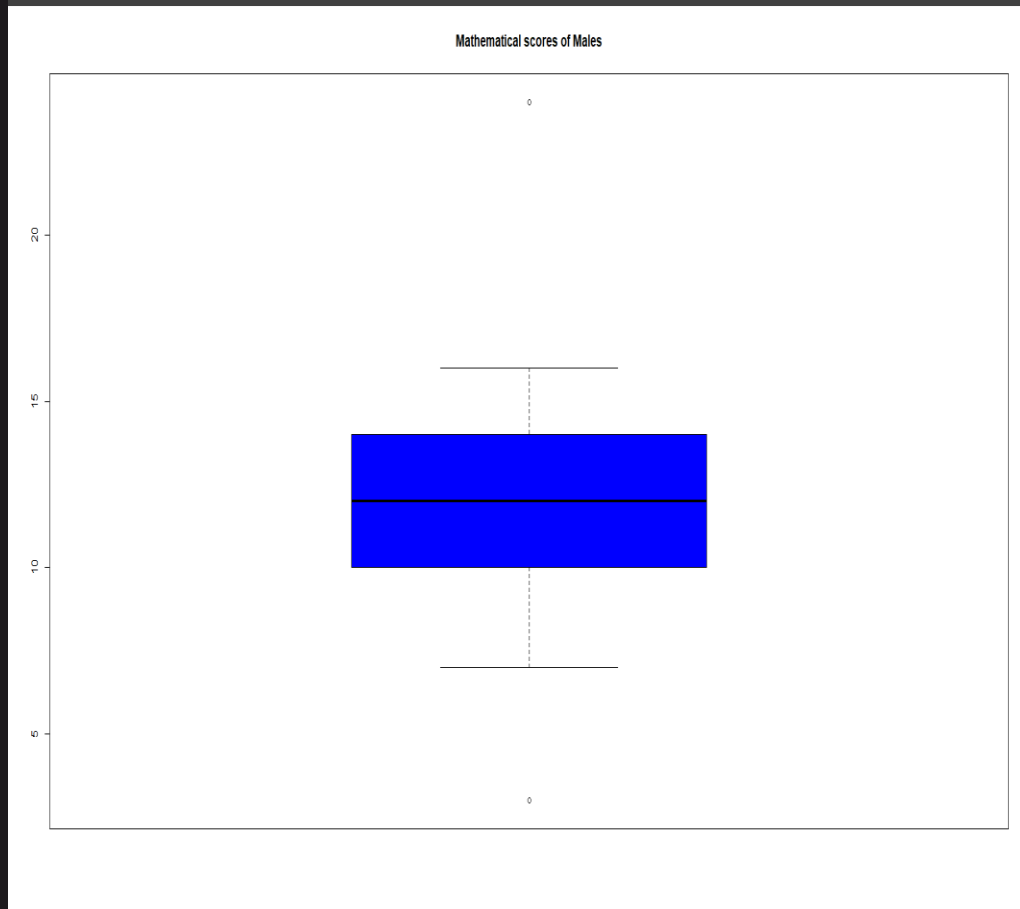
STAGE 1:- 1
STAGE 2:- 2
STAGE 3:- 4
STAGE 4:- 8
STAGE 5:- 16
STAGE 6:- 32
STAGE 7:- 64
STAGE 8:- 128
STAGE 9:- 256
STAGE 10:- 512
STAGE 11:- 1024
STAGE 12:- 2048
STAGE 13:- 4096
STAGE 14:- 8192
STAGE 15:- 16384
STAGE 16:- 32768
STAGE 17:- 65536
STAGE 18:- 131072
STAGE 19:- 262144
STAGE 20:- 524288
STAGE 21:- 1048576
STAGE 22:- 2097152
STAGE 23:- 4194304
STAGE 24:- 8388608

OUR SAMPLE

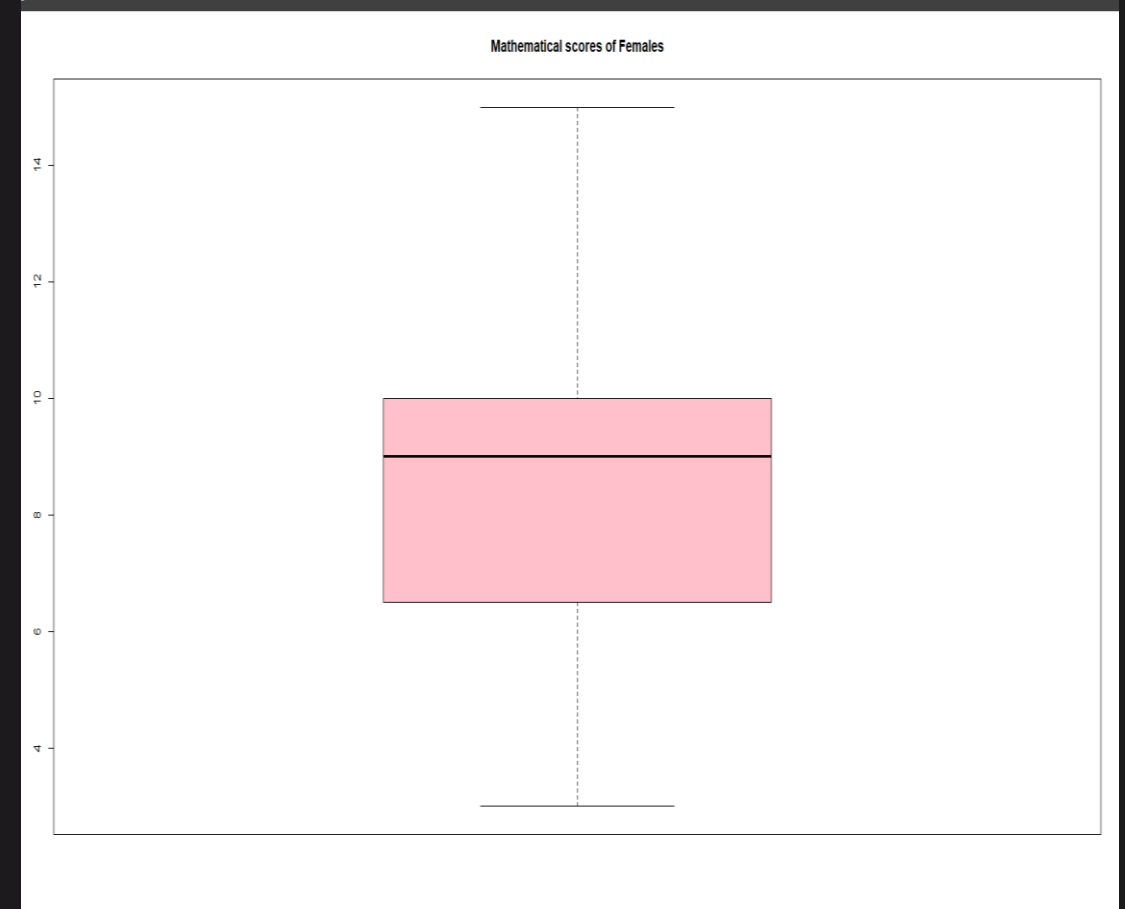


We went and asked this question to people and we got a total of 73 responses. As you can see in the above pie chart , our total sample is of 73 people out of which 41 are males and 32 are females giving them 56% and 44% respectively.

ANALYSIS THROUGH GRAPHS

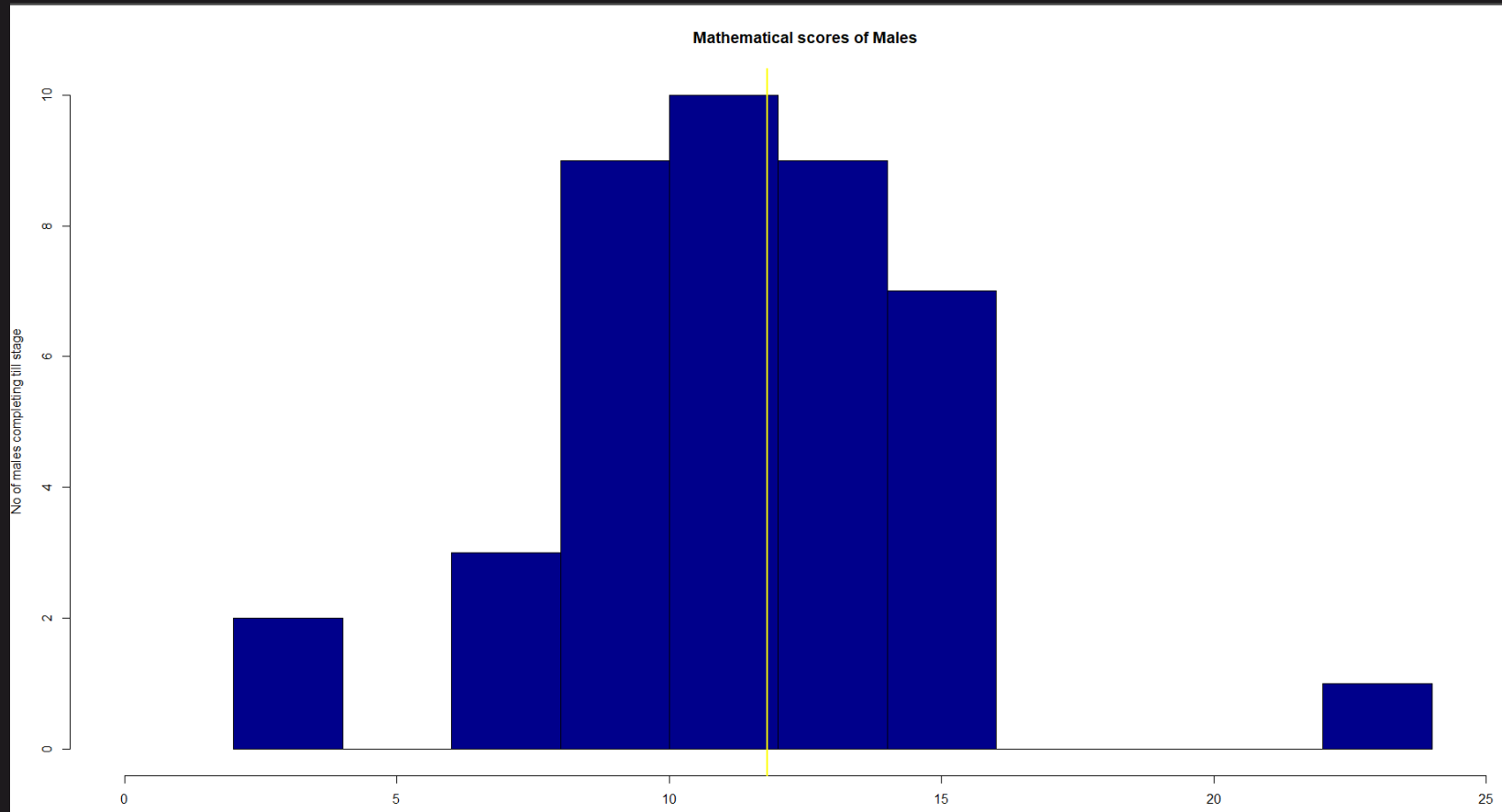


BOX PLOT OF MATHEMATICAL SCORES OF
MALE



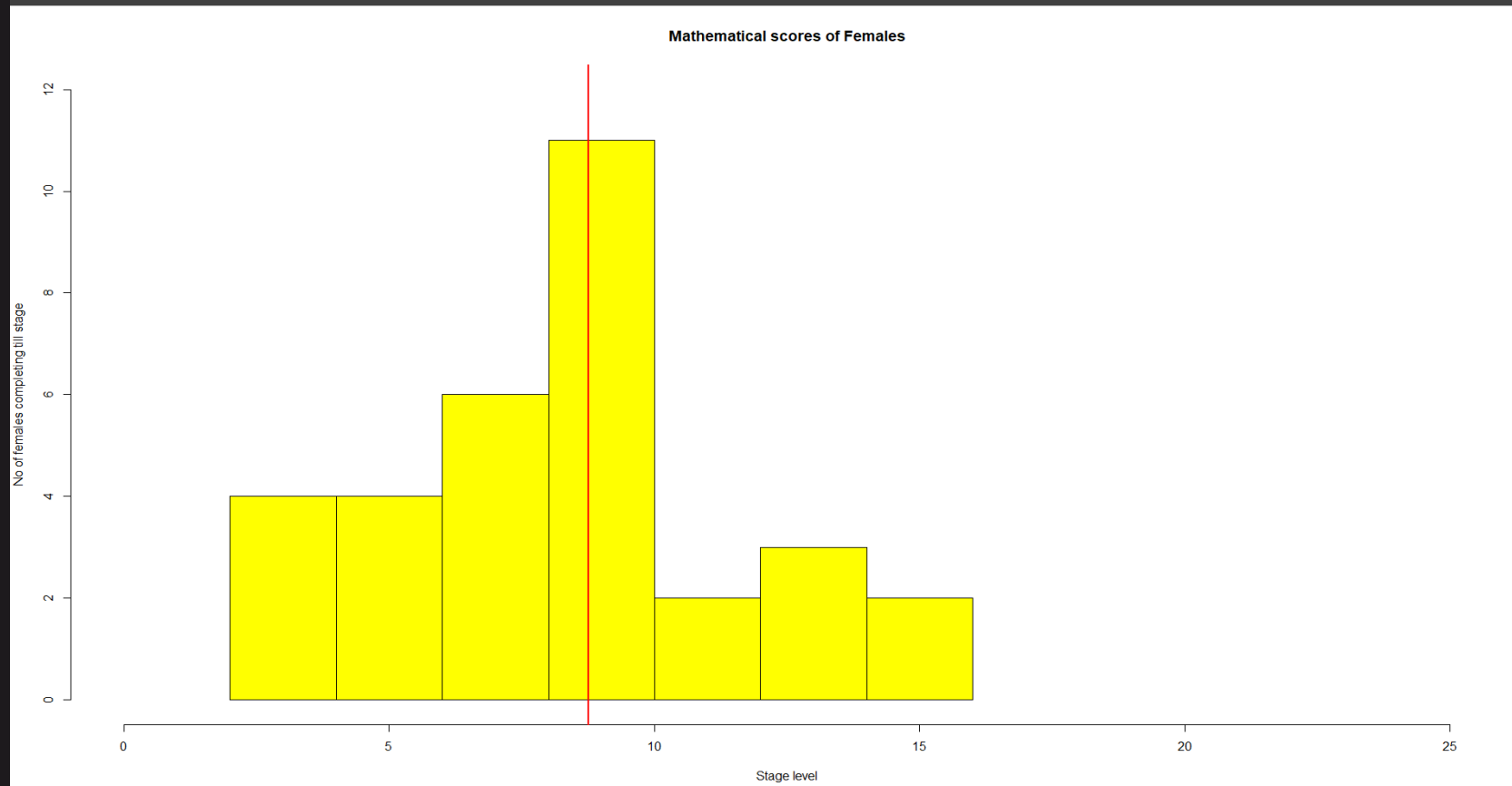
BOX PLOT OF MATHEMATICAL SCORES OF
FEMALE

ANALYSIS THROUGH GRAPHS



HISTOGRAM DEPICTING HOW MANY MALES REACHED WHICH STAGE
(THE YELLOW LINE DEPICTS MEAN)

ANALYSIS THROUGH GRAPHS



HISTOGRAM DEPICTING HOW MANY FEMALES REACHED WHICH STAGE
(THE RED LINE DEPICTS MEAN)

SUMMARY

As we can see from the above histogram, the minimum stage for males and females we got was both stage 3 but it also shows that only 2 males finished till that stage as compared to females which had 4 reaching the minimum stage which was seen. The median stage of males is also clearly higher than that of females which was stage 12 with and stage 9 respectively. Regarding to outliers, there were no outliers observed in females scores whereas there was one positive outlier and one negative outlier. When the maximum scores are also being compared, the male highest stage is 24 which is way more than the 15 scored by females.

| Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. |
|------|---------|--------|------|---------|------|
| 3.0 | 10.0 | 12.0 | 11.8 | 14.0 | 24.0 |

SUMMARY OF MALE MATHEMATICAL SCORES

| Min. | 1st Qu. | Median | Mean | 3rd Qu. | Max. |
|------|---------|--------|------|---------|-------|
| 3.00 | 6.75 | 9.00 | 8.75 | 10.00 | 15.00 |

SUMMARY OF FEMALE MATHEMATICAL SCORES