

CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Project Number

J0422

Name(s)

Jacqueline A. Monteon

Project Title

Measuring the Golden Ratio on Celebrity Faces

Objectives/Goals

The purpose of my project was to see how close celebrities facial measurements come to the Golden ratio, and whether the Golden Ratio which is commonly used in the modeling and movie industry, is a valid mathematical standard for attractiveness. The Golden ratio is a number that comes between 0.618-1.618. The golden ratio is measured by comparing two facial features by adding them together and dividing by the larger number. There are several commonly used parameters that are measured.

Abstract

Methods/Materials

I printed out nine pictures of celebrities currently in the media spotlight, who are by several social and modeling standards considered attractive, unattractive, and/or unpopular. I measured the celebrities faces using seven commonly used parameters such as length of lips and width of nose, where the distance in centimeters of both measurements was added and then divided by the longer measurement to establish the ratio. Each ratio was recorded and the total number of ratios meeting the golden ratio for each celebrity was analyzed.

Results

After counting how many times each celebrity within each ratio parameter fell within the golden ratio and when they did not, all three categories of social attractiveness, unattractiveness, and popularity each had the same results: a summary of 14 (total parameters did not make the golden ratio) : 7 (total parameters did make the golden ratio).

Conclusions/Discussion

I have concluded that my hypothesis that the Golden Ratio is a valid mathematical standard for determining attractiveness by media standards was not supported by the data. The data indicated that twice as many parameters of measurement did not meet the golden ratio standard between 0.618-1.618. This suggests that the commonly accepted standard of the golden ratio is not really a valid mathematical standard for determining attractiveness or popularity by industry standards, and that there are more complex factors that need to be considered if that is the industry goal.

Summary Statement

The purpose of this project is to examine the mathematical validity of the "Golden Ratio" as an industry standard for determining attractiveness.

Help Received

I received no help.