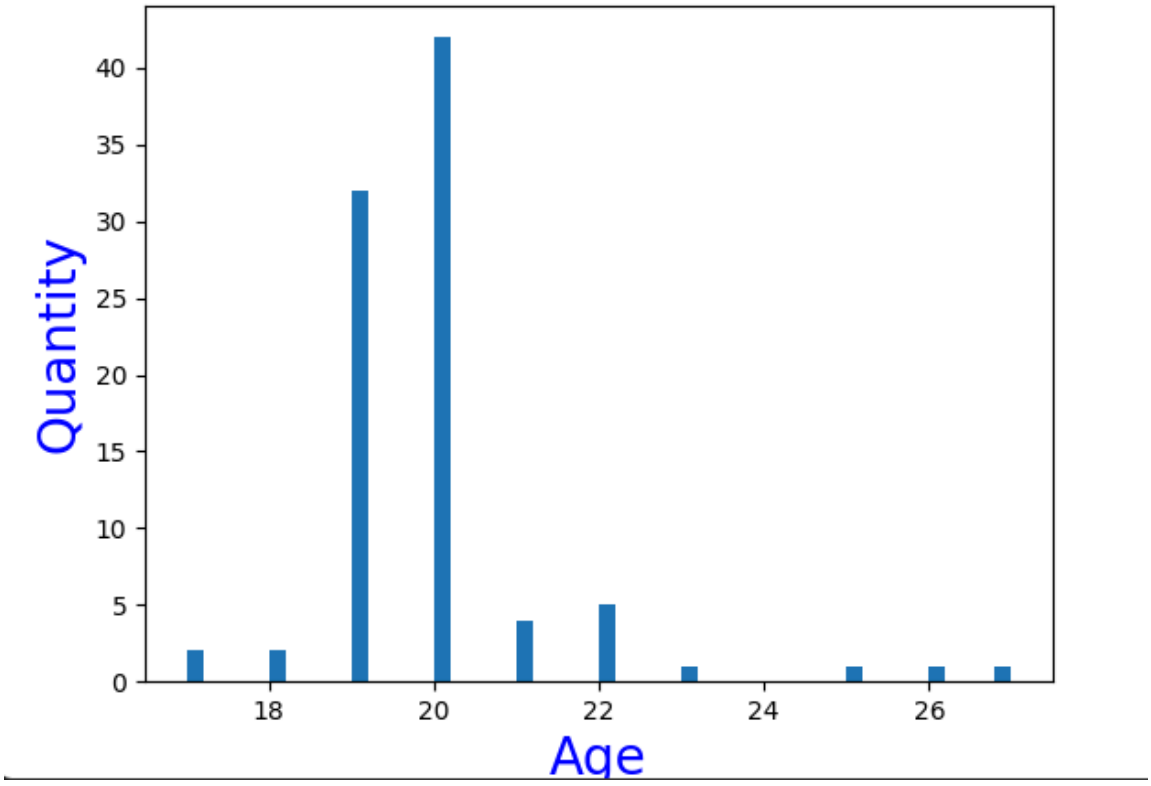
Introduction:

Young characters in justice oriented films such as Light Yagmi in Death Note having a strong intolerance for criminals, believing all of them deserve the absolute punishment of death, and my own personal growth resulting in a waning interest or desire for retribution and punishment towards others, have raised a personal question. Do younger people judge others more harshly than older people? This study analyzes the distribution of Max Morawski's Fall 2024 CMSC320 class' distribution of judgements among students within the class, and finds that when an individual displays harsher judgement, it is more likely that they are younger.

Background:

For context, this is the distribution of ages within our data set



Now, of course it should be stated that the sample we're working with being college aged students makes this an unrepresentative data set for this question, but the goal is to find some kind of difference that we can look into. Perhaps a more fair question that we can answer is do those in their early 20s differ in judgment compared to those in their teens?

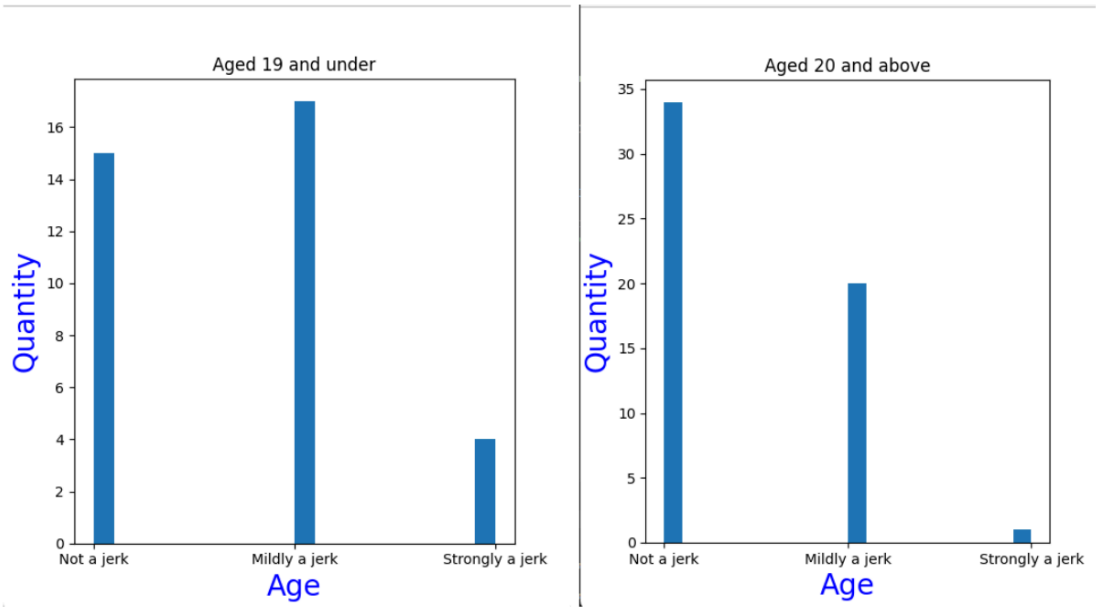
Data cleaning information:

There was one outlier in the data where an individual marked their age as 50+. To be conservative with potential averages obtained from doing this experiment and not skew results, I decided to remove this individual from the data.

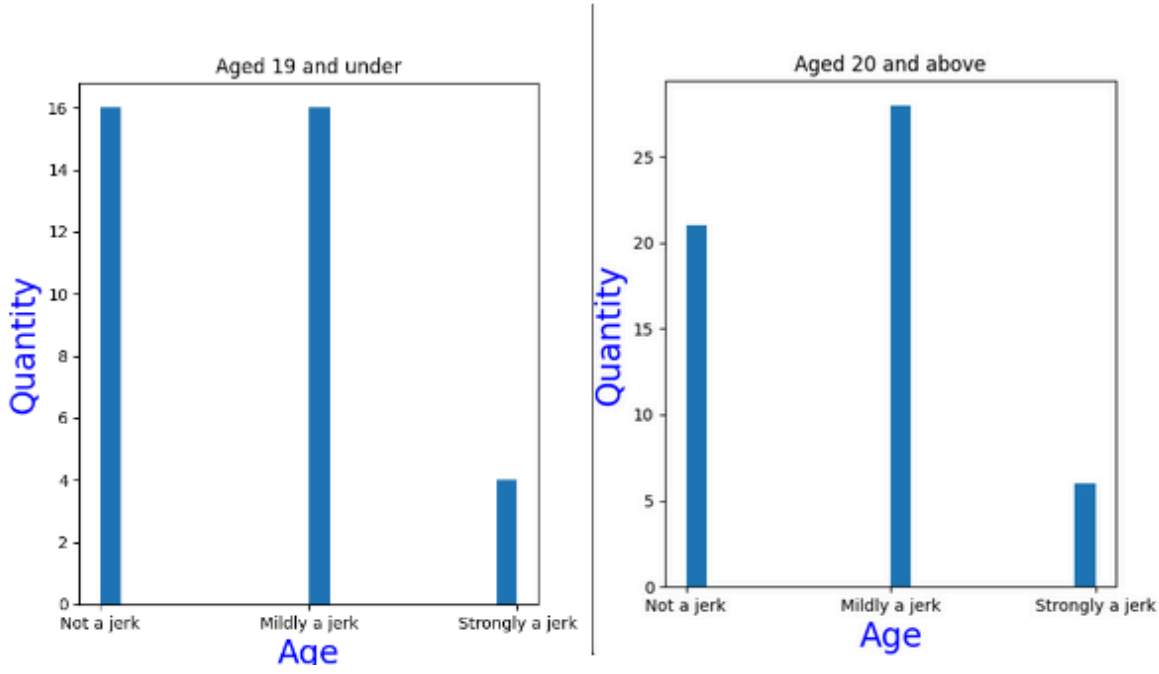
In addition to this, some individuals chose to not respond to some of the situational judgement questions, causing a NaN value to take the place of their response. For these entries, I decided to remove them from the distribution of the specific question they omitted an answer from. Similarly, some individuals chose not to answer provide their age; for these individuals, their information was removed from hypothesis test statistics, and were automatically not counted in judgment distributions.

Distribution of judgement for people aged 20 and older vs people aged 19 and under:

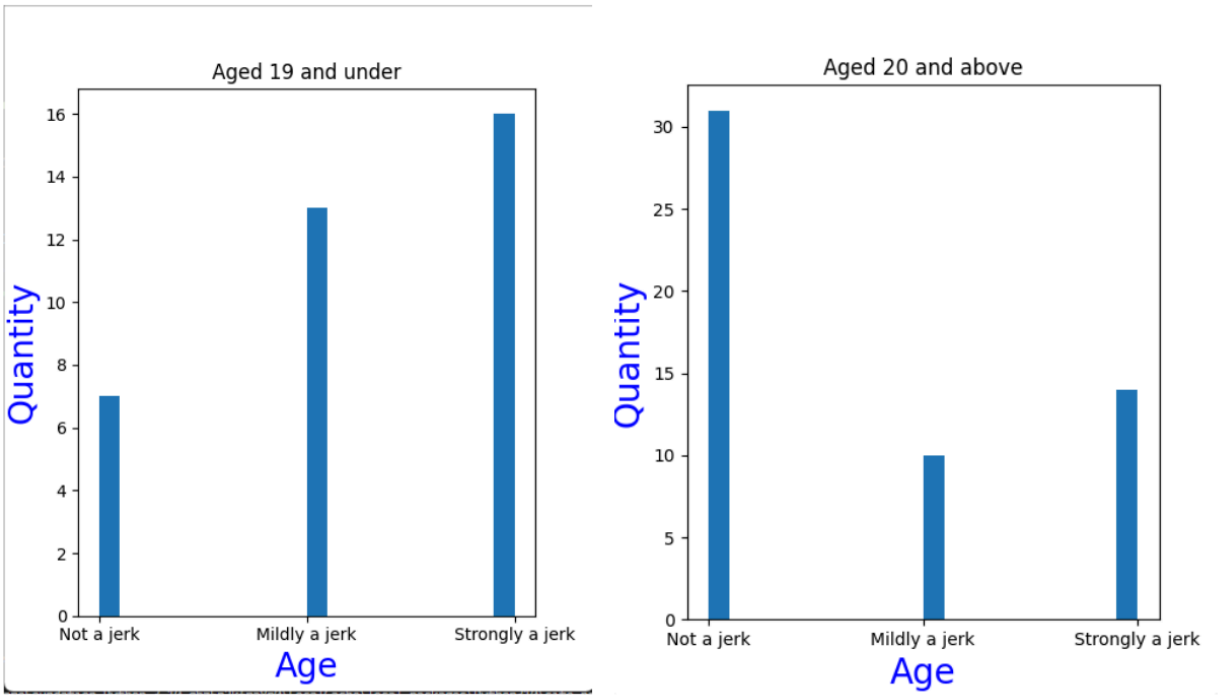
Question 1:



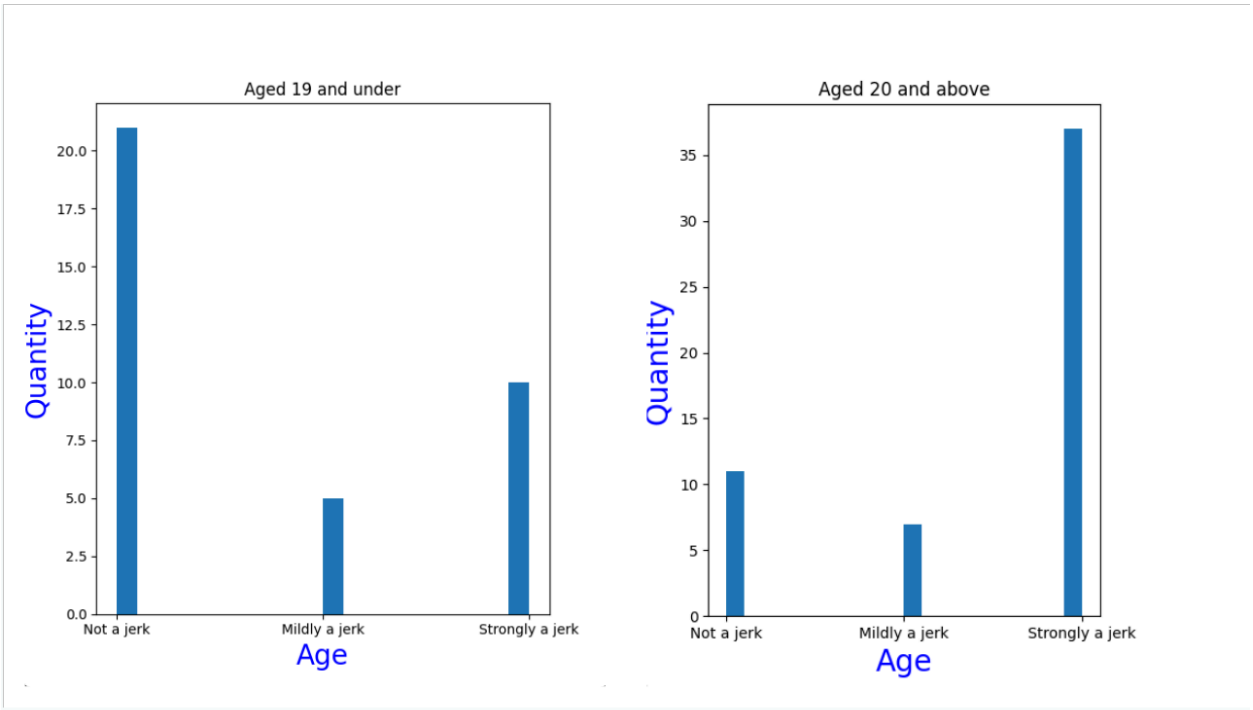
Question 2:



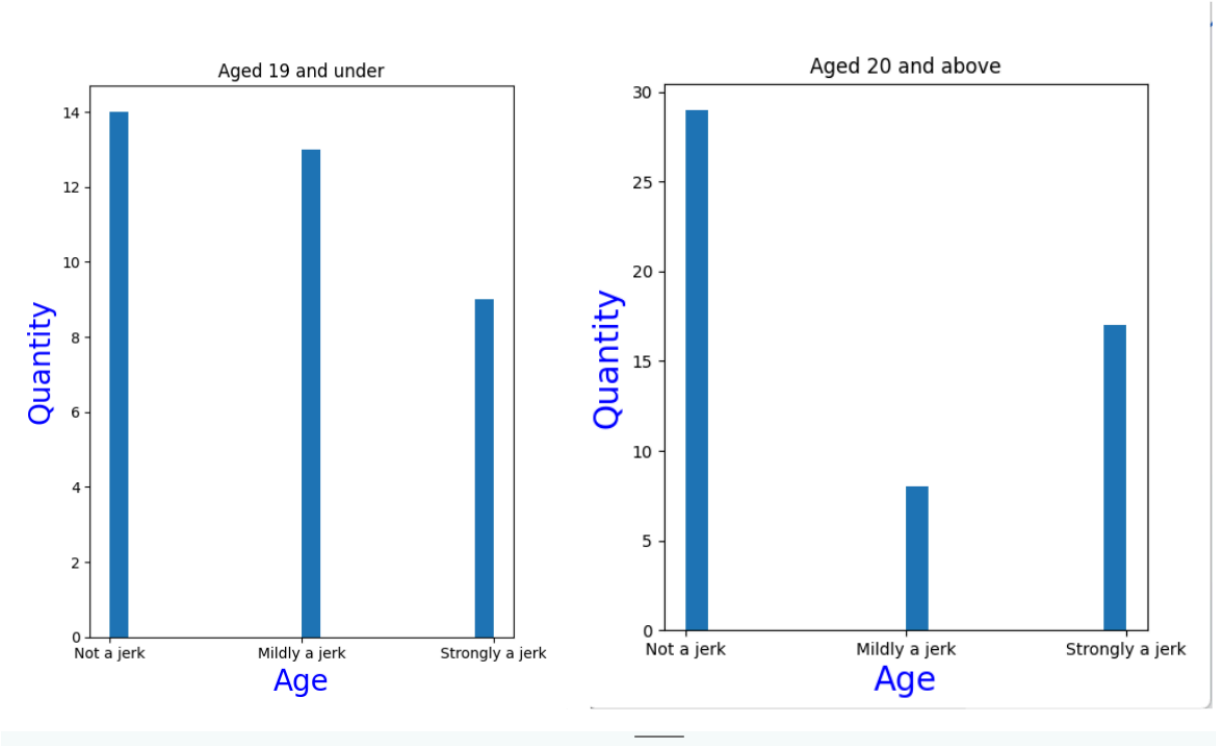
Question 3:



Question 4:


Aged 19 and under
Quantity
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
Not a jerk
Mildly a jerk
Strongly a jerk
Age
Aged 20 and above
Quantity
35
30
25
20
15
10
5
0
Not a jerk
Mildly a jerk
Strongly a jerk
Age

Question 5:


Aged 19 and under
Quantity
14
12
10
8
6
4
2
0
Not a jerk
Mildly a jerk
Strongly a jerk
Age
Aged 20 and above
Quantity
30
25
20
15
10
5
0
Not a jerk
Mildly a jerk
Strongly a jerk
Age

Analysis:

Certain questions such as 3 and 4 paint a picture that there is a strong difference in judgement between the two age ranges, but for questions 1,2,5 display more of consensus in judgement.

To get a better understanding and more conclusiveness on the trends that we're seeing, we can perform a hypothesis test where we compare the distribution of ages for the "Strongly a jerk" category against the standard distribution of ages for the data, and try to determine if there is a difference between the two averages of the categories. To accomplish this, we will be using a two-sample t test and an alpha value of 0.10 to determine if there is a difference.

Hypothesis testing:

We will be performing a one tailed, two sample t- test at a significance level of a=0.10 between the standard distribution of ages in comparison to each question's distribution of ages of those who selected "Strongly a jerk".

Null Hypothesis: There is no difference between the average ages for a particular judgement

Alternative Hypothesis: People with below average age are more likely to select "Strongly a jerk" when judging a situation

Q1: P = 0.050671
Q2: P = 0.141168
Q3: P = 0.628375
Q4: P = 0.870983
Q5: P = 0.090326
Q6: P = 0.101345
Q7: P = 0.191675
Q8: P = 0.213635
Q9: P = 0.448145
Q10: P = 0.181910
Q11: P = 0.077774
Q12: P = 0.098866
Q13: P = 0.172565
Q14: P = 0.032285

We can conclude statistically that for Q1,Q5,Q11,Q12, and Q14 there is a significant difference between the judgement a younger person would provide compared to an older person.

Conclusion:

There is compelling evidence that there is a difference in judgement between older people and younger people, even those within the college age ranges. Our initial claim in regards to younger people having a tendency to judge people more negatively as a generality has compelling evidence if we consider the results we obtained in the t test since this phenomena occurs $5/14 > ⅓$ of the time. If we were to increase the significance level to .15, we could then claim 7/14 of the questions, thus half of all questions being asked, demonstrate a tendency for younger people to be more judgemental.

All in all, there is good evidence that younger people are more likely to have harsher judgments than older people, however, we cannot say definitively that younger people are more likely to be harsh since that would require us to compare a sample of young people to that of a more general one; here we simply revealed that those who were harsher tended to be younger.

To complete this research we would need to compare the results of a young sample to a completely separate data set with the same set of questions, and see if there is a substantial difference in the distributions.