

It's 2AM, a beautiful summer night. You're in the car with your buddies on the way home from a long day, maybe going to a concert or having a day out in the city. As the driver pulls into a Kwik Trip for a rest stop, you feel a twang of irresistible hunger; a crave to snack and chew on God's most divine creation: gummies. You stumble into the holy aisle, lustful with gummy fever, but you are taken aback-- there are too many choices. *Which is the best bang for my buck?* You think desperately, trapped like a pig in a slaughterhouse. Your heart races and you keep thinking, *Which has the most iconic taste? The most vibrancy of color?* And most importantly, *Which gummy has the best softness-to-chewy ratio?*

Sound familiar? Well worry no longer. I, Owen Blenker of Mrs. Plankey's journalism classroom, went to Kwik Trip and bought every single gummy package you can buy so we can answer these very questions you ask yourself so often. Using scientific factors such as The Softness Scale, Iconicity of Flavor, and Accuracy of Price Per Unit, we create modern solutions for complicated gelatin-based issues. This is *Going Gummy*.

### KEY

The softness to chewy ratio will be defined by two factors:

- The Softness Scale- a 1-3 numerical scale describing the buoyancy of the Gummy. 1-hard (rough and chewy), 2 average (soft and rubbery) 3-soft (supersquishy)
- The quantitative average of chews before swallowing.

The flavor favorability will be defined by three factors:

- Best rated flavor- case study results of participants trying gummies blind and rating them based on favorability on a scale of 1 to 5.
- Most accurate flavoring- case study results of participants able to identify gummy flavor.
- The Iconicity Test- case study results of participants able to identify the brand of gummy based on taste alone. If the gummy is over 3/6 participants recognized, it is considered an iconic gummy.

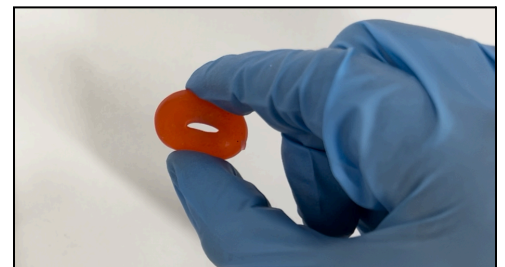
Most visually pleasing gummy will be defined by analyzing the Pantone color of each gummy and distinguishing its vibrancy level.

Price v. quantity will be defined by four factors:

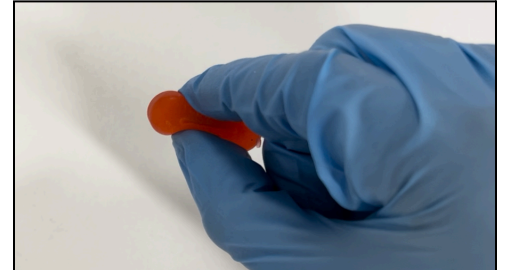
- Amount of gummies per package
- Price per individual gummy
- Overall cost

### LIFESAVER GUMMIES

On The Softness Scale, the Lifesaver gummy sat around level 2, with the buoyancy was about average of a gummy with a rubberlike tough exterior but squisher insides. The average chews before

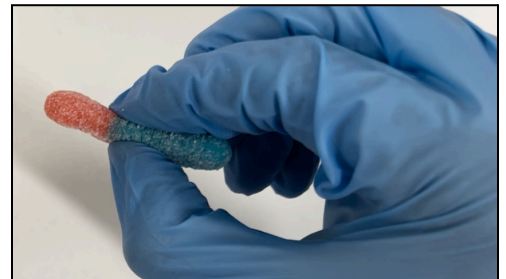


swallowing was 14. The flavor of the gummy averaged at 3.5 when blindly tested in the case study, the highest of the 6 gummies tested. 4 of 6 participants were able to correctly identify the flavor blindly given to them, making it a successful test. Due to the easily recognizable donut shape, this gummy passed the Iconicity Test with flying colors, recognized by 5 of the 6 participants. The color vibrancy was varied and therefore about average, with colors ranging from a pale yellow 107-C to a rather appealing dark pumpkin orange 152-C. It was 5th in overall gummies for vibrancy of color. In a 200g package priced at about \$3.49, there were 51 gummies in the bag; each weighing about 4.07g. This made the unit price of each gummy about \$0.068, fourth in the price ranking of all gummies.



### TROLLI SOUR WORMS

Trolli Gummies sat at a level 1.5 on the The Softness Scale, the buoyancy was chewy because of the more elongated shape of the gummy. This is evident in the chew ratio as this gummy has the highest average chews before swallowing with about 20 chews being average. The flavor of the gummy averaged highly, at 4.0 when blindly tested in the case study. 3 of the 6 participants directly recognized this gummy, and 2 others identified it as “that one sour gummy worm brand” which was allowed as recognized flavor, making the gummy taste officially iconic. However, the flavoring accuracy was not as successful, with two different colors to choose from in the blind taste test, only 1 participant could identify even one of the colors. This gummy placed at about 3rd in color vibrancy however, with tropical colors like 115-C and 353-C standing brightly amongst its competitors. In a 140g package priced at about \$2.99, there were 34 gummies in the bag; each weighing about 4.44g. This made the unit price of each gummy about \$0.087, fifth in the price ranking of all gummies.



### URGE GUMMY BEARS

If this gummy could be lighter than 3 on The Softness Scale it would. The Urge Gummy bears squish extremely under pressure, making them very soft and easy to split. The average chews before swallowing was unfortunately not recorded. The flavor of the

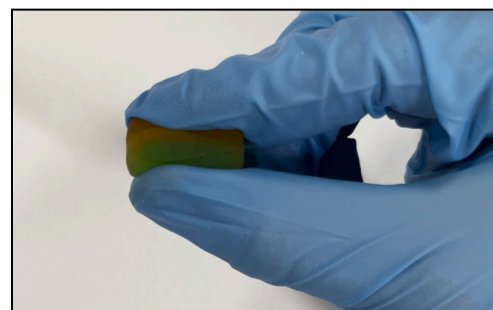
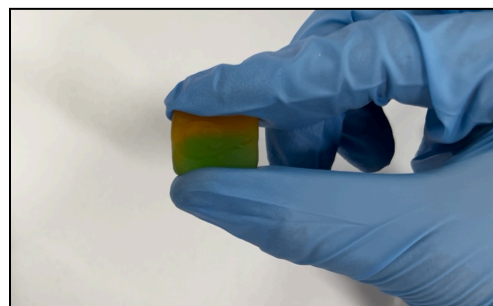


gummy averaged at normal rate with a 3.7 mean when blindly tested in the case study. It also was about average with flavor accuracy: 3 of 5 participants accurately guessing the color with a blind test. However, this gummy miserably failed in the Iconicity test with 0 participants recognizing its flavor. The color vibrancy was right in the middle, placing 2nd in color vibrancy with some standout colors like the maraschino cherry red 186-C or deep forest green 356-C. In a 160g package priced at about \$2.29, there were 40 gummies in the bag; each weighing about 3.98g. This made the unit price of each gummy about \$0.057, third in the price ranking of all gummies.



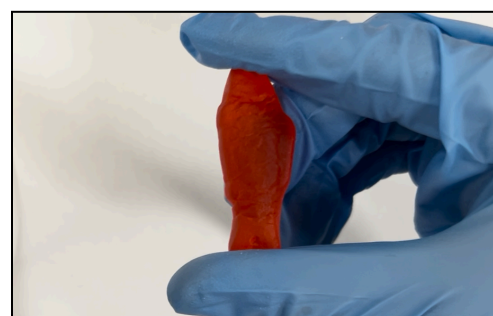
### STARBURST GUMMY DUOS

Starburst gummies were an interesting level of softness, with a strange chewy-soft combination like a cross between Lifesavers and urge; they ended up with a 2.5 score on The Softness Scale. The chew ratio was the second lowest of the gummies though, averaging at 8 chews before the swallow. This gummy had a low flavor rating with only a 2.8 score out of 5. Only 1 out of 6 participants successfully recognized the blind taste of a Starburst Gummy Duo, and 2. However, the flavoring accuracy was not as successful, with two different colors to choose from in the blind taste test, and 2 participants thought they were other gummies that were included in the study. This gummy also disappointingly placed last of all 6 gummies for color vibrancy, with its dark rusty 1385-C oranges and murky 7482-C greens. The lack of bright colors and offer of only 4 colors split between 2 gummies was extremely disappointing and solidified this gummy's spot close to the bottom of the tier list. In its 170g package priced at about \$3.99, there were 42 gummies in the bag; each weighing about 4.08g. This made the unit price of each gummy about \$0.095, sixth in the price ranking of all gummies.

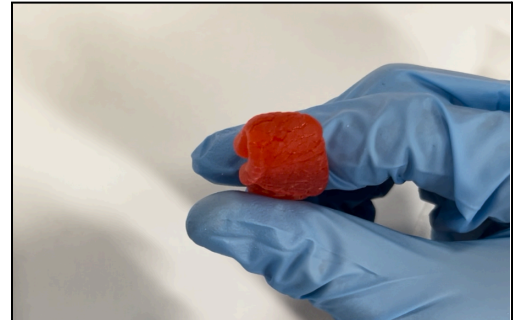


### SWEDISH FISH

Swedish Fish. The vermin of gummies. I will be honest I have a bias against Swedish Fish because they come from the devil himself, but now I can show the data to prove they are the most diabolical, disgusting gummies. The Softness Scale puts them at a 1,

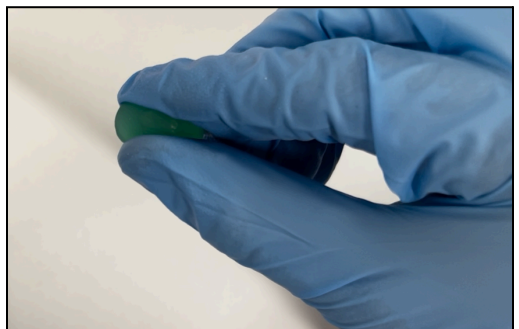
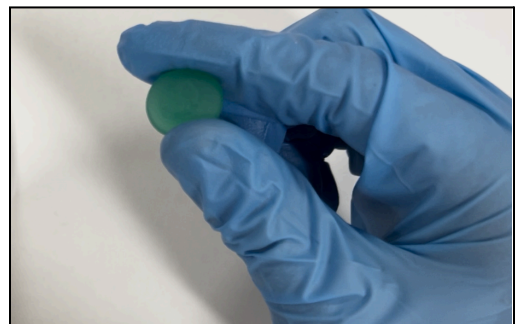


and it should be noted when squished they crack and crumble like they're stale and old. The chew ratio is an abominable 35 chews because of the over-the-top chewy texture and sheer size of the gummy. The flavor rating from the blind taste test leveled at 2.5 out of five, and participants were visibly surprised at again, the size and taste of the gummy. That being said all 6 participants recognized the taste of the gummy, the only one to accomplish such a feat. The color this gummy takes is a generally appealing 1788-C, however this is the only color and flavor this package uses. In its whopping 225g (the largest of all 6 gummies) package priced at \$3.99, there were only 36 gummies in the bag; each weighing about 5.83g. This made the unit price of each gummy about \$0.111, a far last place in the price ranking of all gummies. Good riddance.



### SKITTLE GUMMIES

The Skittles Gummies reach a level of 1.5 on The Softness Scale, because they have a rubbery buoyancy like the Lifesaver Gummies, but due to the tiny size of them they feel more compact and tough. Another byproduct of the smaller size is smaller chew times, creating the record of an average of 6 chews before the swallow of one gummy. This gummy rated on the lower side, at about 2.9 out of 5 for the blind taste test case study. It also only had 2 participants correctly blindly guess the color of the gummy based on the flavor. This gummy, while new, was very unknown among the 6 participants, none of them knowing it and 2 mislabeling it for other brands. It was also very unsuccessful in vibrancy of colors, with the dark 504-C being the cover for the other just *slightly* off-colors, being just a few levels too dark for ideal vibrancy. Skittle Gummies placed 6th out of 7 gummies for visually pleasing status. Due to the small Skittle-sized gummies, in a 165g package priced at about \$3.49, there were 72 gummies in the bag; each weighing about 2.16g. This made the unit price of each gummy a minuscule \$0.042, a first place in the price ranking of all gummies.



### NERD'S GUMMY CLUSTERS

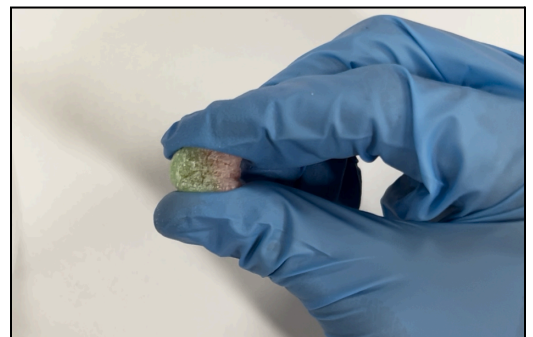
*Unfortunately I have disqualified Nerd's Gummy Clusters from being considered as a Gummy because I don't know how to rate the buoyancy with the candy exterior, there are too many colors, and I don't know exactly what counts as a single gummy because they literally cluster together and the size varies. I*



*included them though because people love them and they received 3 separate 5 star flavor ratings, so maybe consider them*

### WATERMELON SOUR PATCH KIDS

Strangely, Kwik Trip only carries the watermelon flavored Sour Patch Kids, which one could argue that they are also not that sour but that's neither here nor there. These gummies are a 3 on The Softness Scale because of their rough, chewy texture. This is evident as the gummies chew at a rate of 15 chews before the swallow even with their smaller size. The gummy rated high amongst the test audience with a score of 3.33 out of 5, and 3 of 6 participants recognized the flavor of it making it officially an iconic flavor. It also contained the very vibrant colors, consistently showing an appealing calm 367-C green and soothing 182-C. Though one must keep in mind those are the only colors and only flavor. In a 230g (1.23g was excess sugar) package priced at \$3.99, there were an incredible 82 gummies in the bag; each weighing about 3.42g. This made the unit price of each gummy a minuscule \$0.048, a close second place in the price ranking of all gummies.



### CONCLUSION

According to The Softness Scale, The Iconicity Test, straight up dollar per gummy, and other factors the statistical greatest Kwik Trip gummy is Kwik trips very own Urge Gummies. While not an iconic flavor, these gummies were enjoyed by each participant of the case study with a strong average 3.7 score out of 5. They also placed above average in pricing (third out of seven) with only \$0.057 per gummy, and with its standout vibrant colors it was one of the highest visually appealing gummies. There we have it, we have gone gummy.

### SPECIAL THANKS AND WORKS CITED

Thanks to Sarah Hoffman for helping me collect and analyze the data, Mrs. Meihon and Mrs. Brown for giving me equipment, and Mrs. Severson, Mrs. Underhill, and Mrs. Plankey for entertaining this idea. Also shoutout the people in the actual experiment.

Case study and analysis spreadsheet:

[https://docs.google.com/spreadsheets/d/1mgJYB130ppm3TgR7aaDObwX8PMs\\_1Y2NITMEcFoU5iY/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1mgJYB130ppm3TgR7aaDObwX8PMs_1Y2NITMEcFoU5iY/edit?usp=sharing)

Data Collection by Owen Blenker and Sarah Hoffman

Data interpretation by Owen Blenker