[Instructor key]

WORDLE

What is recreational math?

Enjoyment/pleasure, gambling, games, obsessive couponing, voting theory

Strategies

Find vowels first: A, E, I, O, U

Average probability of each vowel appearing $= \frac{\frac{9}{100} + \frac{12}{100} + \frac{9}{100} + \frac{8}{100} + \frac{4}{100}}{5} \approx 4.2\%$

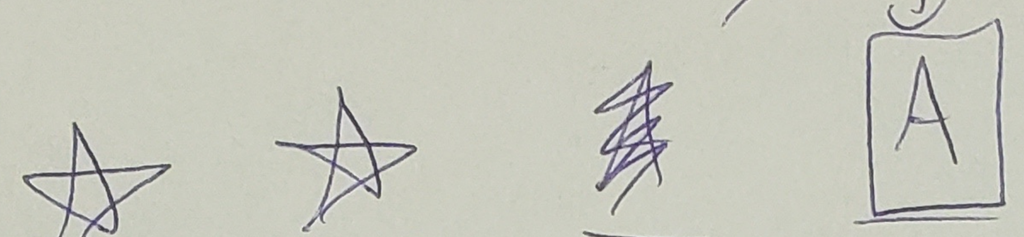
Average probability of consonant appearing $= \frac{\frac{2}{100} + \frac{2}{100} + \frac{4}{100} + \cdots + \frac{2}{100} + \frac{1}{100}}{21} \approx 2.6\%$

Lots of vowels: ADIEU, AUDIO, MOUSE, RAISE

2 vowels + Common consonants: SPOIL, STARE, STAIR, LEADS, GLARE, GRIME

Example

You know 2 letters ~~[illegible]~~ and their positions, and you know 3rd letter is wrong position. How many configurations? Assume there are no more As



2 spots for A . 25 · 25 = ~~[illegible]~~ 1250

Example

How many five-letter strings/words are there?

T T T T T

26 · 26 · 26 · 26 · 26 =

11,881,376

Repeat letters MOOSE, FEVER, AGAVE, ...

Lots of consonants CHART, NYMPH, GLYPH

OCTORDLE/QUARDLE, SQUARDLE