Second Python Project

(1) Create a function that determines the ratio of consonants over vowels in a string. The letters 'y' and 'Y' do not count as either nor do spaces, punctuation symbols, etc. For example: `ratio('Marquette University is in Milwaukee')` is `1.0666666666666667`. If there are no vowels, then the function should return 0.

(2) Create a function that determines the harmonic mean of a list of numbers. The harmonic mean of a list $[a_1, a_2, \ldots, a_n]$ is defined as $\dfrac{n}{\dfrac{1}{a_1} + \dfrac{1}{a_2} + \ldots + \dfrac{1}{a_n}}$. For example, the harmonic mean of `[5,2,7,1,3,1,2]` is `1.9041450777202074`.

(3) Write a function that takes a list of stock prices at the end of the trading day and calculates the largest increase in the stock value during a period of five trading days.

Example:

```
[121 122 121 125 126 126 127 130 131 130 132 133 133 138 138 144
 143 143 144 148 148 148 148 148 148 148 146 146 147 147 151 153
 151 152 152 152 157 157 163 165 165 170 175 175 177 179 182 186
 185 183 184 184 185 186 187 185 186 189 192 191 192 192 192 191
 191 191 192 196 194 193 194 195 195 197 199 200 197 201 201 201
 203 203 201 200 201 201 205 210 207 206 212 209 211 213 212 212
 211 212 213 215]
```
has best five day increase 18.