TOP 200

COMMON PASSWORDS

Contents of the Report

Introduction

Analysis of top 200 common passwords by 49 countries

Why should business and tech leaders analyze passwords?

Part 2.

Comparing

Passwords by Countries

Finding the best, worst, and everyone in between

1 **Question One**

How many users in each country were found to have used passwords on the list

2 **Question Two**

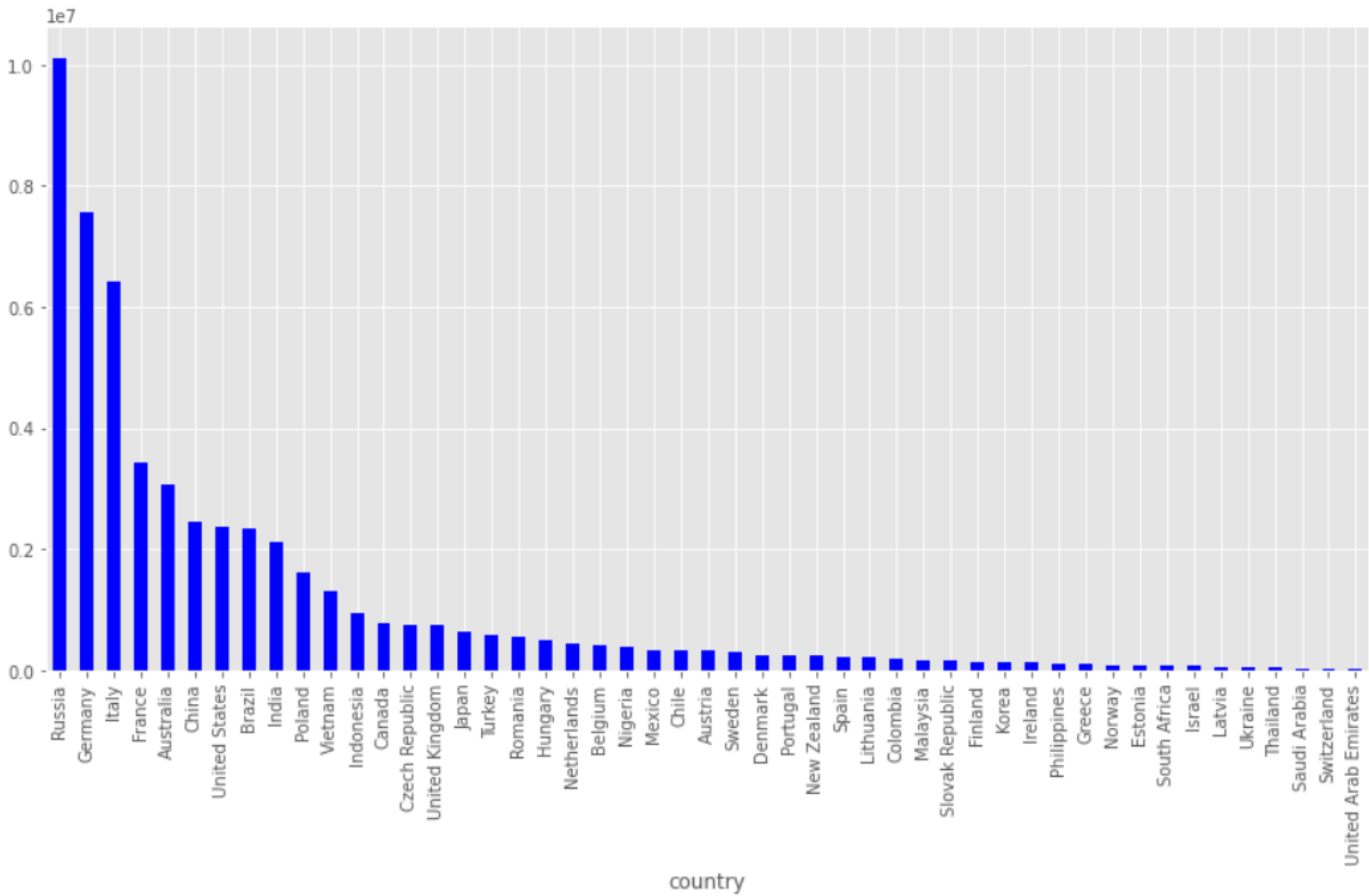What is the average password length by country?

3 **Question Three**

What is the average time to crack the password by country?

01.

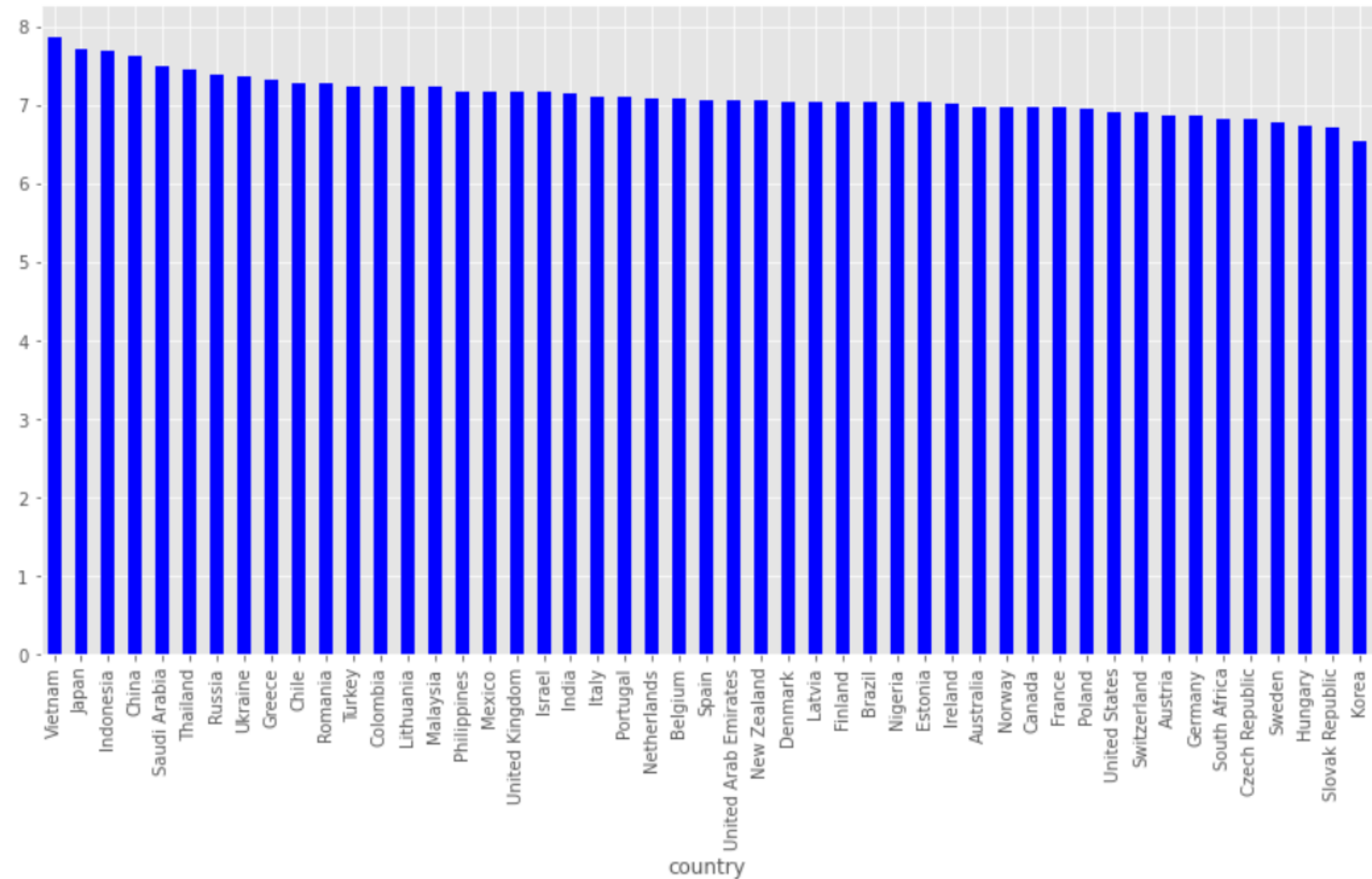**How many users in each country were found to have used passwords on the list in 2020?**

Average: 12630.86

02.

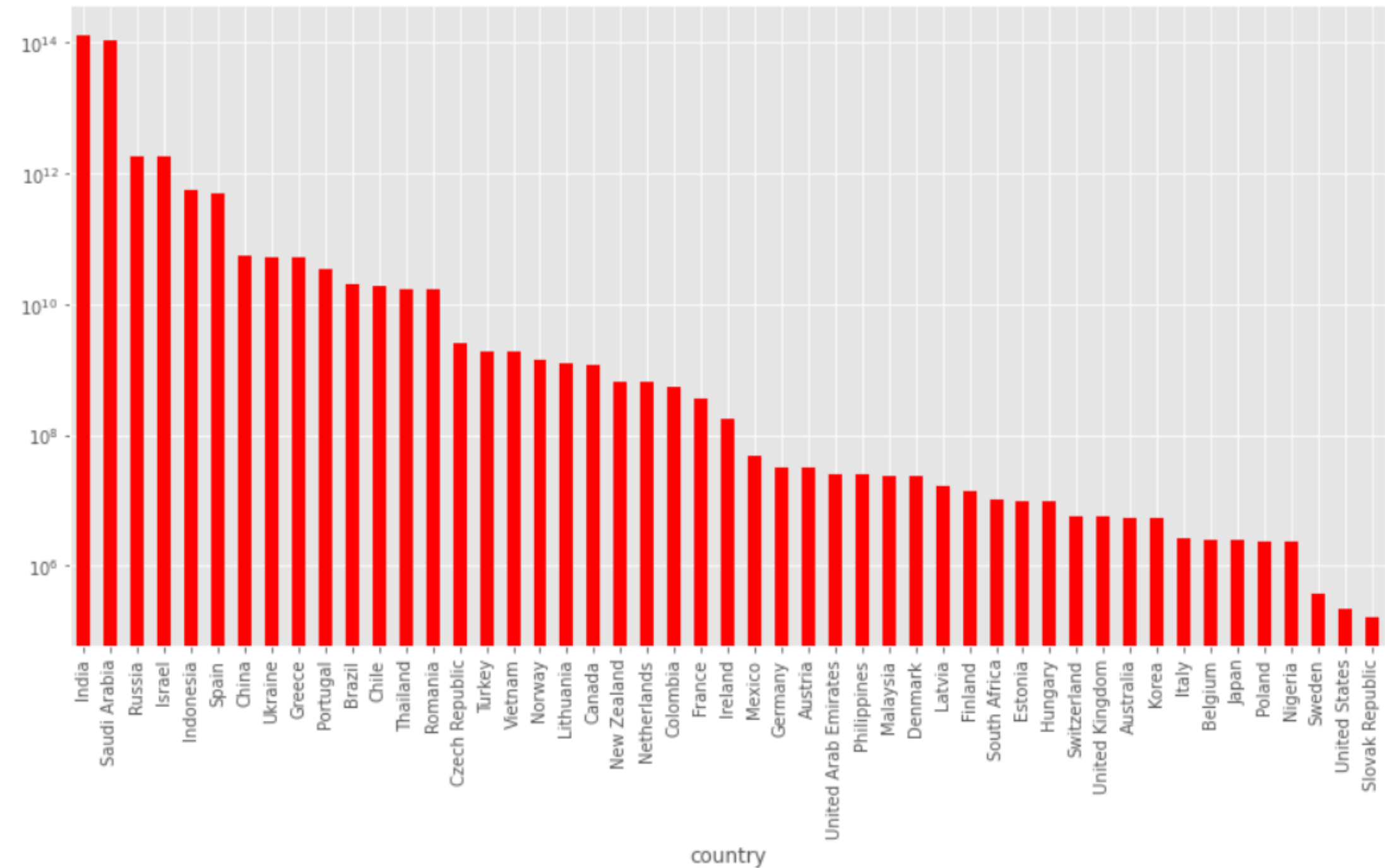**What is the average password length by country in 2020?**

Average: 7.11

03.

What is the average time to crack the password (in seconds) by country?

Average: 5003708088591.47 seconds

Part 3.

Top 5

Unique Passwords

Of the Unique passwords in the list, the top five used in 2020 are

01 — **target123**
713609 users

02 — **1g2w3e4r**
713360 users

03 — **gwerty123**
713241 users

04 — **zag12wsx**
710667 users

05 — **tinkle**
699420 users

04

Part 4.

Password

Complexity

Using unique passwords from the list

Breakdown

What makes a strong password?

Determined password strength by how complex the password is.

1

Uppercase

"ABCDEFGHIJKLMNOPQRSTUVWXYZ"

2

Lowercase

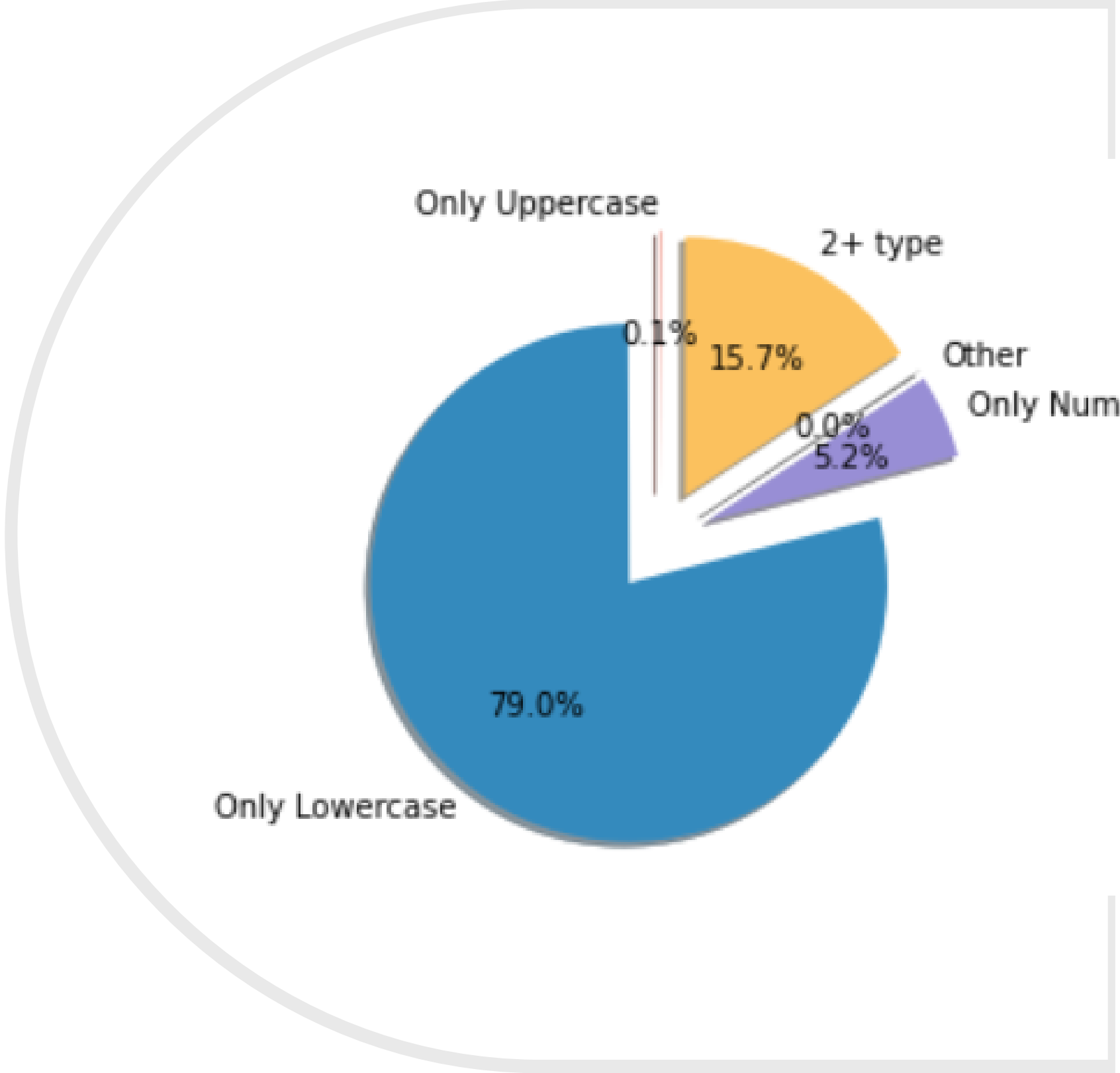"abcdefghijklmnopqrstuvwxyz"

3

Number

"1234567890"

4

Special Character

"!@#$%^&*()-+?_=,
<>/"

5

Length >= 12

Only Uppercase

2+ type
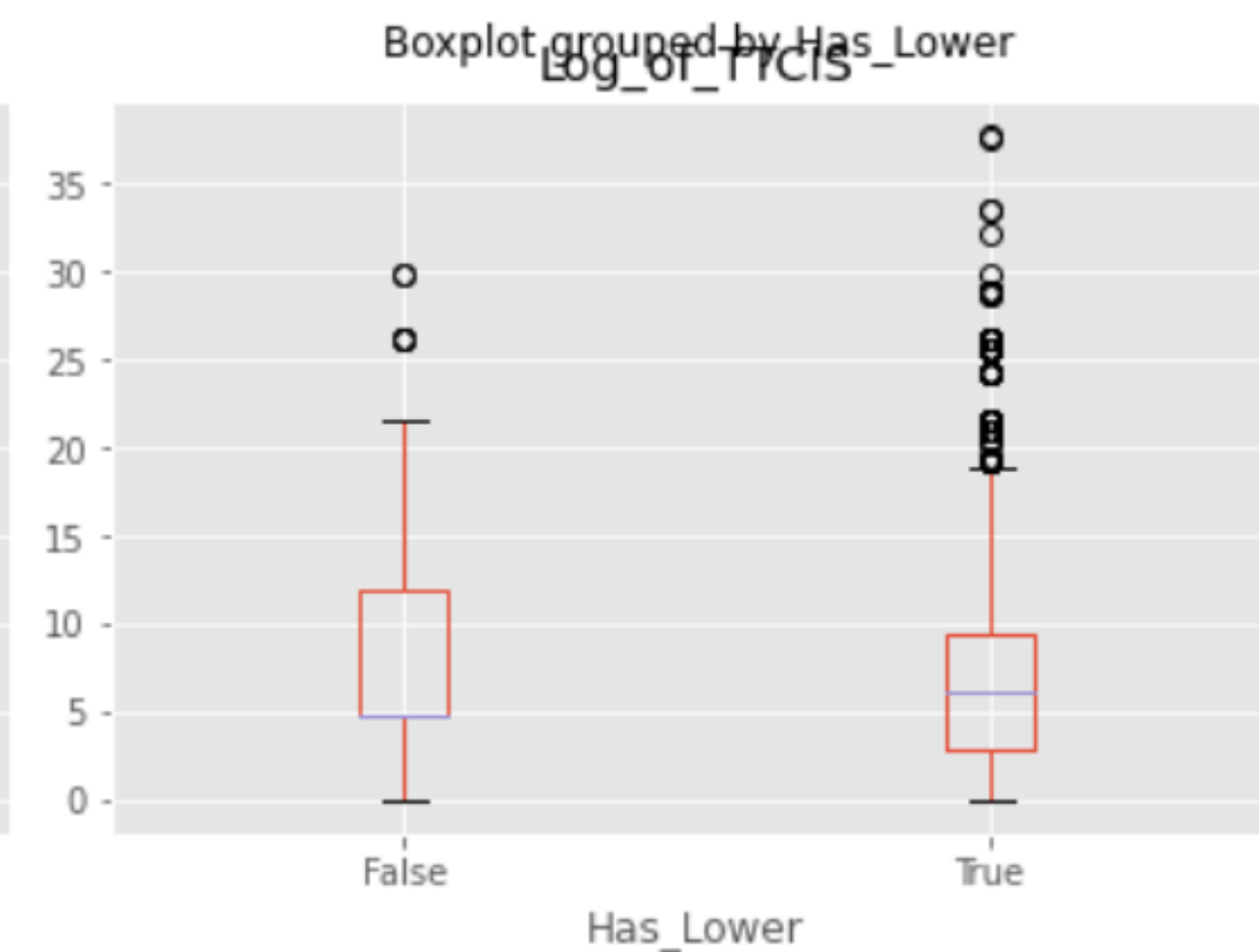
0.1%

15.7%

Other

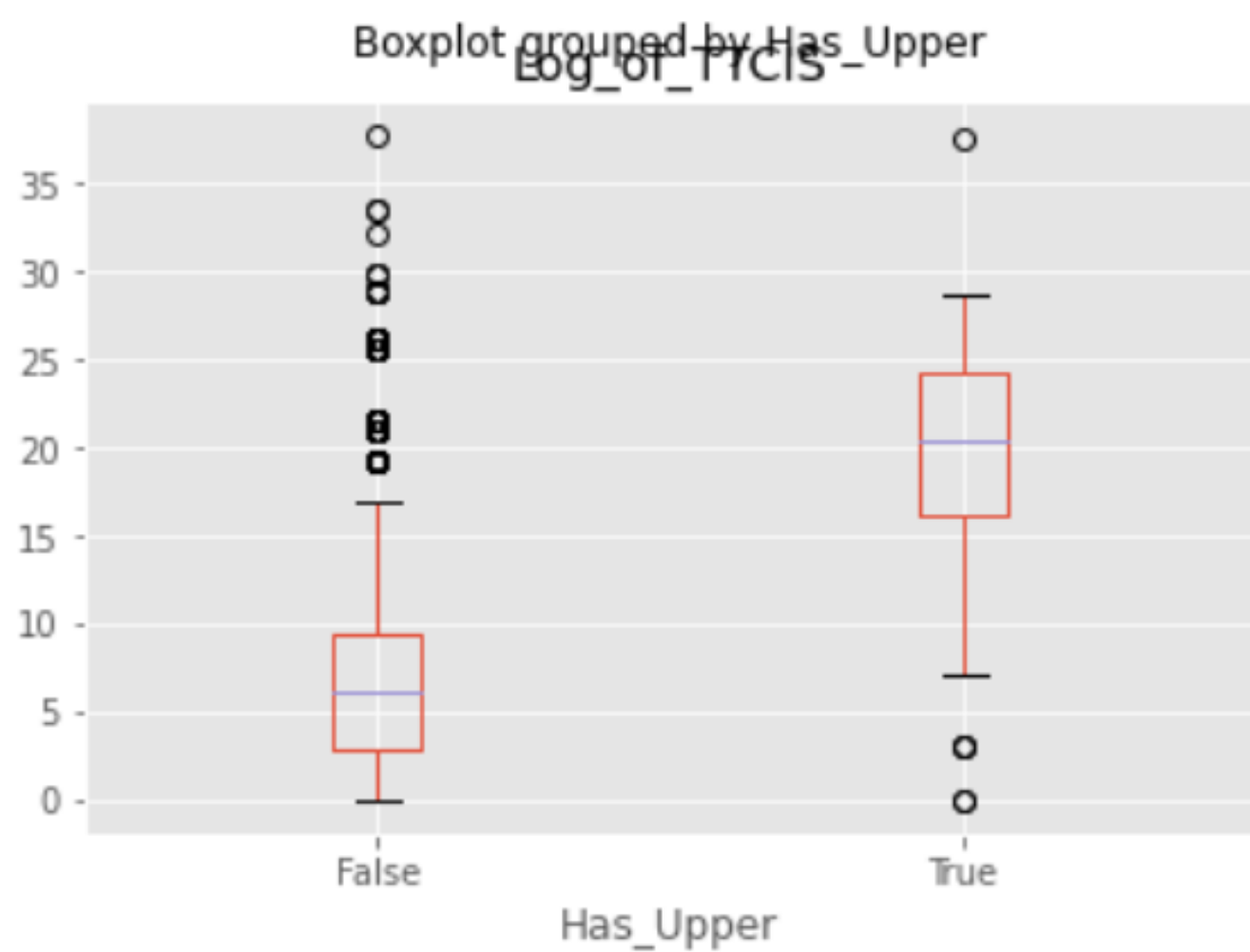Only Numbers
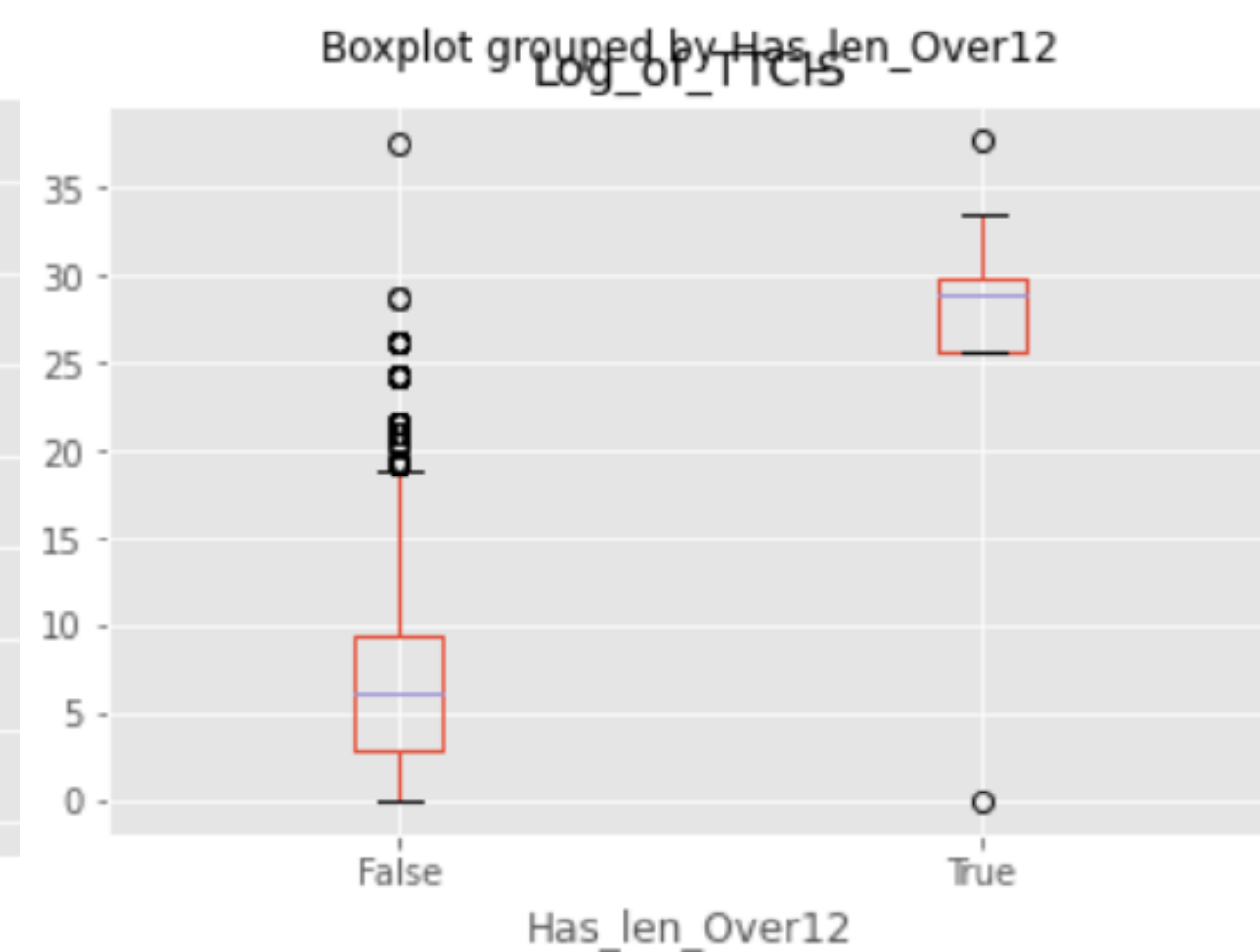
0.0%

5.2%

79.0%

Only Lowercase

Of the unique passwords

Majority

had only one type

84.3 % **Complexity 1**

2 Other found

Boxplot grouped by Has_Num — Log_of_TTCIS (Has_Num: False, True)

Boxplot grouped by Has_Special_Char — Log_of_TTCIS (Has_Special_Char: False, True)

Boxplot grouped by Has_len_Over12 — Log_of_TTCIS (Has_len_Over12: False, True)

Boxplot grouped by Has_Upper — Log_of_TTCIS (Has_Upper: False, True)

Boxplot grouped by Has_Lower — Log_of_TTCIS (Has_Lower: False, True)
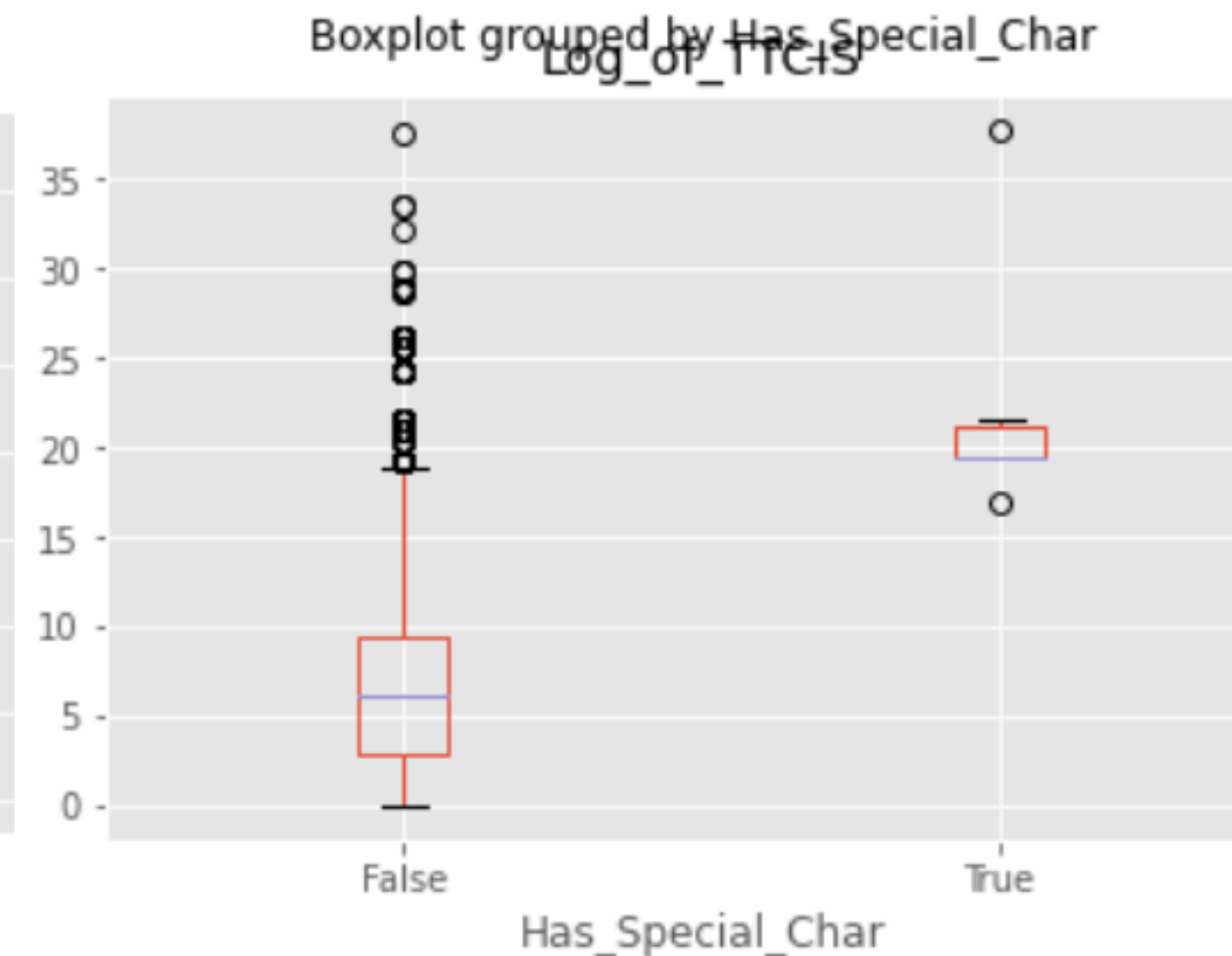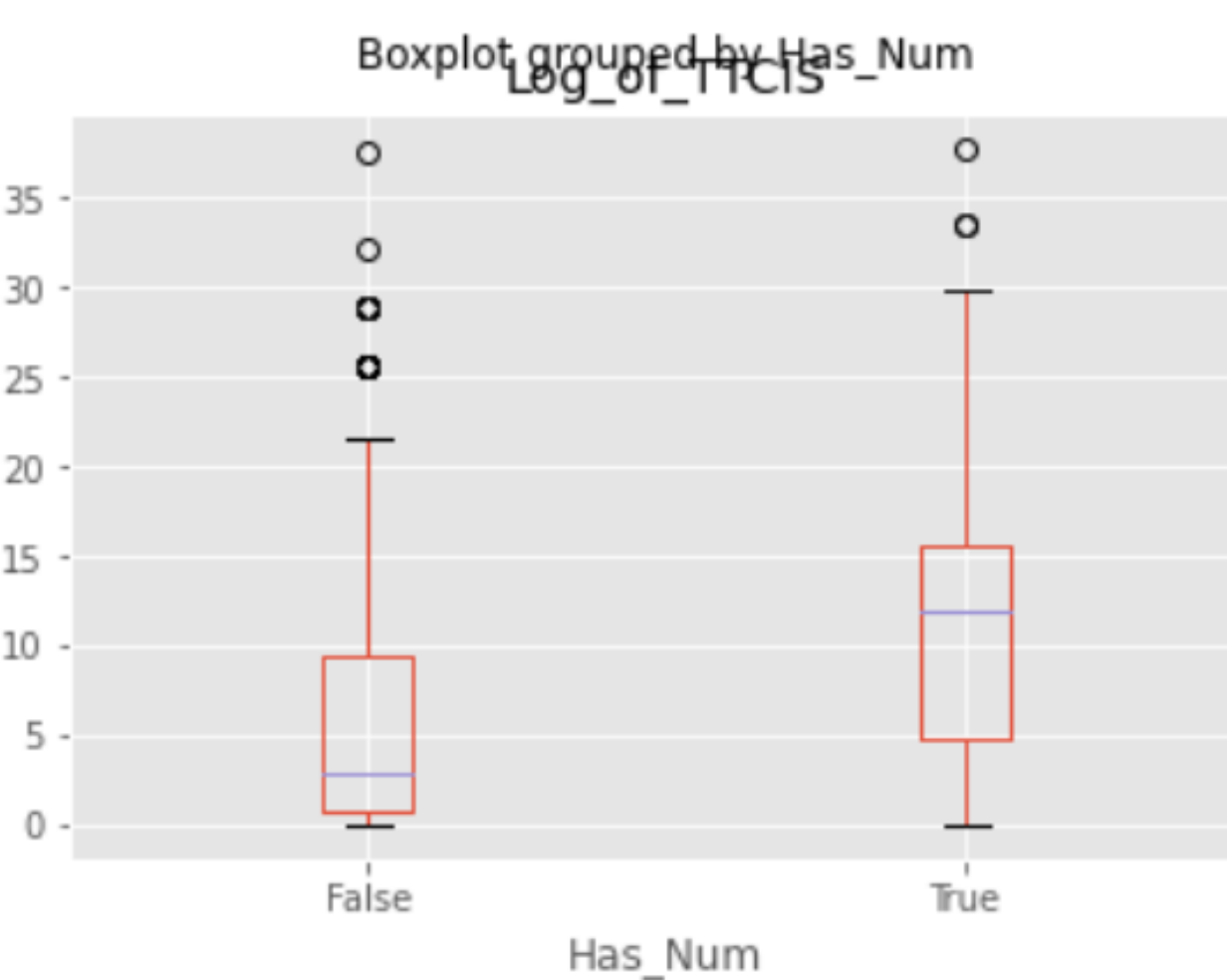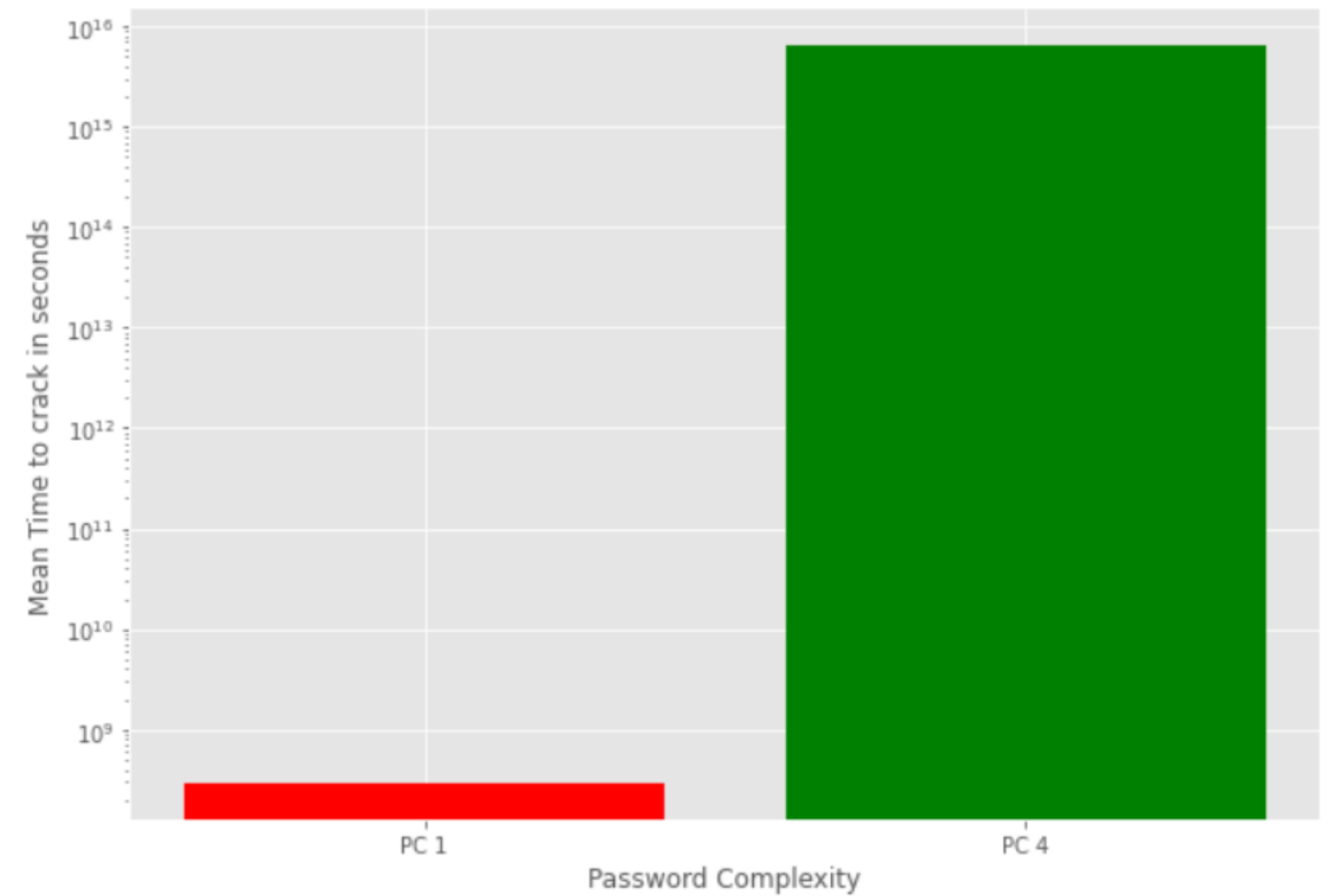
Relationship between

Complexity and Mean Time to Crack

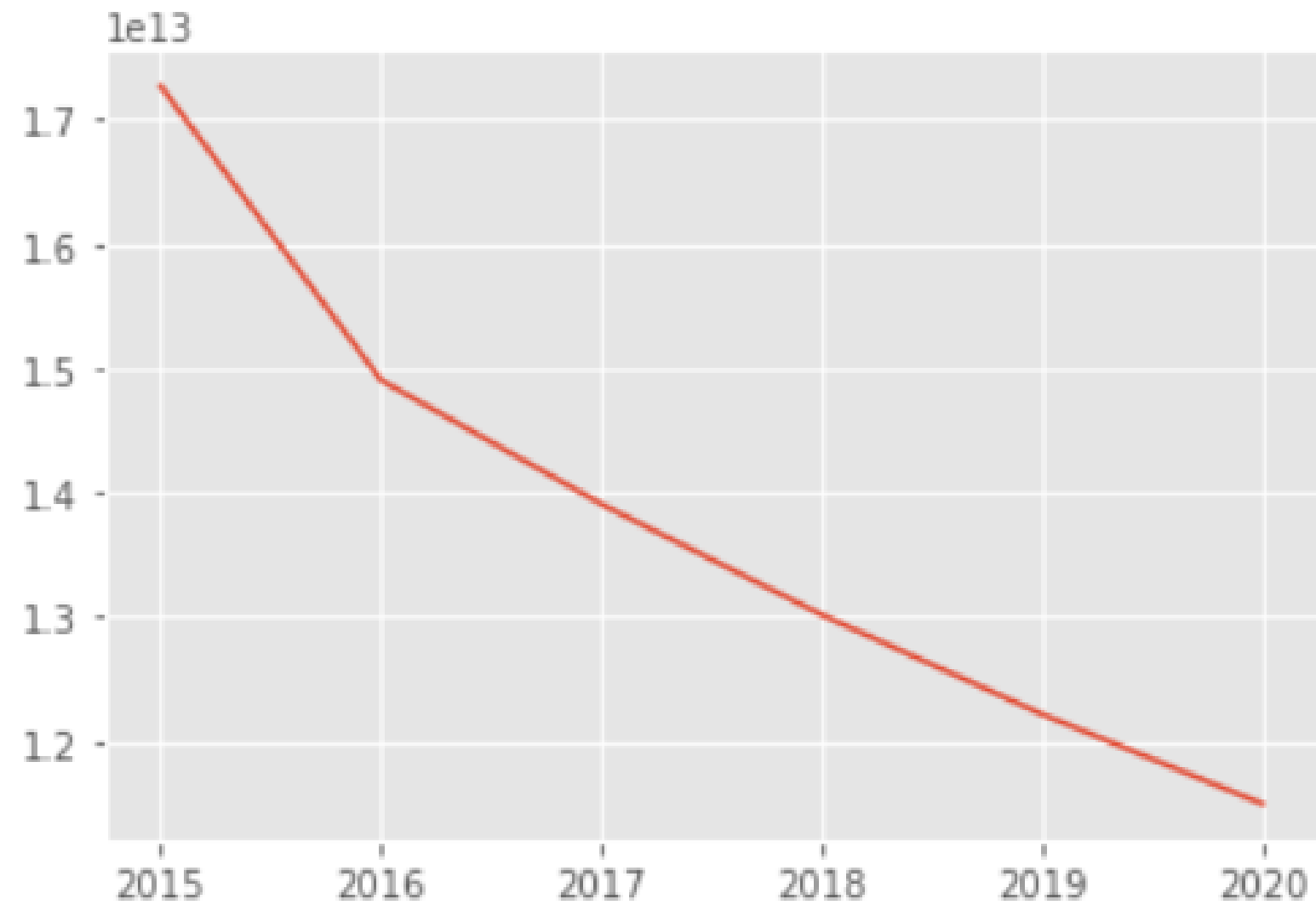PC1 vs. PC4

Part 5

Passwords over Time

Of the unique passwords in the list, has the crack time changed from the past years?
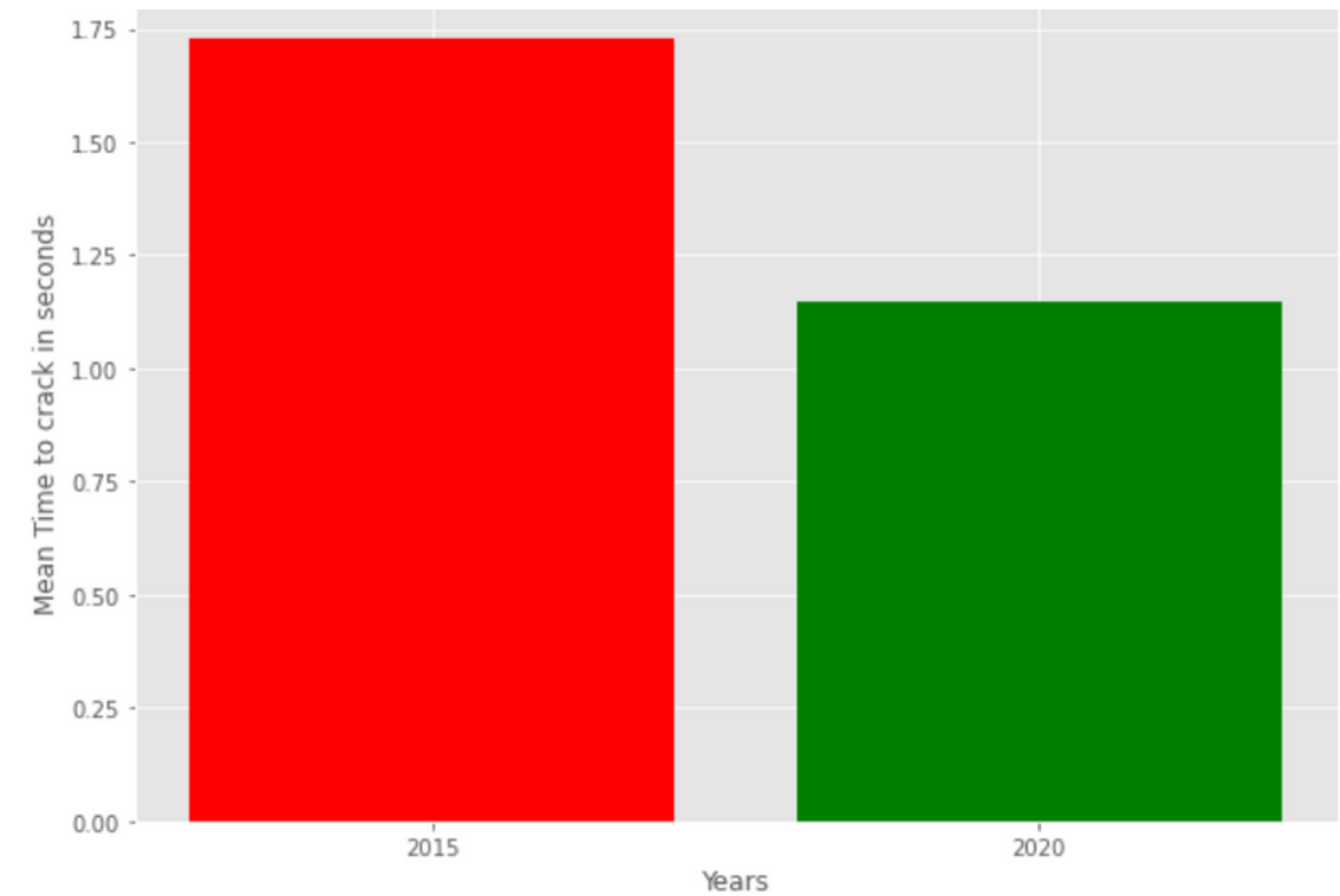
05

Average Crack Time for the Unique Password Set Over
Past 5 Years

−50.23 %
change from 2015 to 2020

Part 6.

Future Work

If I had more time and data

1 See how the average password length changes over time

2 See if there is any correlation between top trending words/hashtags and passwords