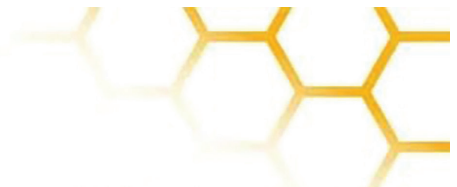


CYBER SECURITY & YOU

SEPTEMBER 2021

This chart illustrates why the length and complexity of your password really does matter.

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	1 sec	5 secs
7	Instantly	Instantly	25 secs	1 min	6 mins
8	Instantly	5 secs	22 mins	1 hour	8 hours
9	Instantly	2 mins	19 hours	3 days	3 weeks
10	Instantly	58 mins	1 month	7 months	5 years
11	2 secs	1 day	5 years	41 years	400 years
12	25 secs	3 weeks	300 years	2k years	34k years
13	4 mins	1 year	16k years	100k years	2m years
14	41 mins	51 years	800k years	9m years	200m years
15	6 hours	1k years	43m years	600m years	15 bn years
16	2 days	34k years	2bn years	37bn years	1tn years
17	4 weeks	800k years	100bn years	2tn years	93tn years
18	9 months	23m years	6tn years	100 tn years	7qd years



TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD



-Data sourced from HowSecureIsMyPassword.net

“Go long” should not be reserved for the football field. It is a critical rule to follow for your passwords as well. Increasing a password from 9 to 10 characters changes the time needed to crack the password from 3 weeks to 5 years. Here are some helpful rules to follow when thinking of your next password:

1. Length: The longer the better. (Yes, it is important enough for me to point out again!)
2. A mix of uppercase, lowercase, numbers, and special characters (or at least 3 of the 4).
3. No personal information. None! No dates, names, places, or sports teams.
4. No proper names or dictionary words.

Using a passphrase is a great idea. See that sentence you just read? It would be a great password with just a few changes. Maybe stick an upper case where it doesn't belong or a random character somewhere, such as "Usi*ng a passPhrase is a gr8 ide@." Now you have a 34 character password with mostly non-dictionary words. As you can see, once you pass 15 characters or so, you can start to bend some of the other rules. ■

QUICK TIP

There are online tools that will help you determine the true strength of a password. One that I use is from LastPass and can be found [here](#). Never type your real password in any of these sites, but instead use comparable passwords (the same numbers of each type of character). By experimenting with these tools, you can understand what is required to create strong passwords.

