

Category: Communication

Part 1 of 4, Page 1 of 12

Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ Blogger
- ☐ Coollist.com
- ☐ Friendster
- ☐ GMail
- ☐ Live Journal
- ☐ Lycos Mail
- ☐ Mail.com
- ☐ MyWay.com
- ☐ Orkut
- ☐ Princeton Webmail
- ☐ QuickTopic.com
- ☐ ScreenName.com [AOL Netscape AIM Compuserve]
- ☐ Yahoo!

Category: Finance

Part 1 of 4, Page 2 of 12

Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ Bank of America
- ☐ CBS Marketwatch
- ☐ E-Trade
- ☐ Financial Times
- ☐ Fleet
- ☐ Merrill Lynch Online
- ☐ Morningstar.com
- ☐ PNC
- ☐ Princeton Credit Union
- ☐ Wells Fargo

Category: Travel

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Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ Alaska Airlines
- ☐ American Airlines
- ☐ Amtrak
- ☐ Continental Airlines
- ☐ Expedia
- ☐ Extended Stay America
- ☐ Hilton Hotels or Hampton Inn
- ☐ Marriott Hotels
- ☐ NJ Transit
- ☐ Orbitz.com
- ☐ Priceline.com

- ☐ Student Universe
- ☐ Travelocity
- ☐ United Airlines

Category: Shopping

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Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ 1-800-Flowers.com
- ☐ Amazon.com
- ☐ Barnes and Noble
- ☐ BizRate
- ☐ Blue Nile
- ☐ Buy.com
- ☐ CVS/pharmacy
- ☐ Crate and Barrel
- ☐ E-Bay
- ☐ Epinions.com
- ☐ Flower.com
- ☐ Fogdog Sports
- ☐ IKEA
- ☐ Kmart
- ☐ Office Max
- ☐ Overstock.com
- ☐ Starbucks
- ☐ Target
- ☐ The Sports Authority
- ☐ Walmart

Category: News

Part 1 of 4, Page 5 of 12

Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ Guardian (UK Newspaper)
- ☐ LA Times
- ☐ NY Times
- ☐ Newsday.com
- ☐ Salon.com
- ☐ Washington Post
- ☐ Women's eNews

Category: Computers & Internet

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Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ AvantGo
- ☐ Backflip.com

- ☐ Dell Computers
- ☐ ExtremeTech.com
- ☐ HP Computers
- ☐ IBM Computers
- ☐ InterVideo.com
- ☐ O'Reilly Books
- ☐ Slashdot
- ☐ SourceForge

Category: Entertainment

Part 1 of 4, Page 7 of 12

Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ Audible.com
- ☐ GamesMania
- ☐ MTV.com
- ☐ MovieTickets.com
- ☐ Netflix
- ☐ RPG.net
- ☐ TicketsClub.com
- ☐ Tower Records
- ☐ Wizards of the Coast
- ☐ iTunes/Apple Store

Category: Reference

Part 1 of 4, Page 8 of 12

Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ AccuWeather.com
- ☐ Books 24x7
- ☐ Interlibrary Loan
- ☐ Traffic Pulse
- ☐ Weather.com
- ☐ Wikipedia

Category: Services

Part 1 of 4, Page 9 of 12

Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ "Microsoft Passport [Hotmail, MSN, MSN Messenger, MSN Money, MSN Encarta]"
- ☐ CampusFood.com
- ☐ Comcast
- ☐ Food Network
- ☐ Keen.com
- ☐ Match.com
- ☐ Meetup
- ☐ Monster.com

- ☐ Net-Temps.com
- ☐ Opera.com: My Opera
- ☐ Phone Shark
- ☐ RelayHealth.com
- ☐ Sprint.com: My PCS
- ☐ T-Mobile
- ☐ TV Shows on DVD
- ☐ UniversalClass.com
- ☐ Verizon
- ☐ WebMD
- ☐ Working For Change
- ☐ iVillage.com

Category: Sports

Part 1 of 4, Page 10 of 12

Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ Baseball Mogul
- ☐ CBS Sportsline Fantasy Sports
- ☐ ESPN Fantasy Games
- ☐ ESPN.com : MyESPN
- ☐ MLB
- ☐ NBA
- ☐ NFL.com Fantasy
- ☐ NHL Chat
- ☐ WhatIfSports.com

Category: Journals & Magazines

Part 1 of 4, Page 11 of 12

Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ Discover Magazine
- ☐ HighWire.com
- ☐ Magazines.com
- ☐ Ms Magazine
- ☐ PC Magazine
- ☐ People Magazine
- ☐ Reader's Digest
- ☐ Scholastic.com
- ☐ Science Magazine
- ☐ Scientific American Digital
- ☐ Z Magazine

Category: Shopping: Clothes

Part 1 of 4, Page 12 of 12

Please answer as accurately as possible.

Do you have an account on the following websites? Place a check next the website name.

- ☐ Abercrombie & Fitch
- ☐ American Eagle Outfitters
- ☐ Banana Republic
- ☐ GAP
- ☐ J Crew
- ☐ Macy's
- ☐ Nordstrom's
- ☐ Old Navy
- ☐ Victoria's Secret

GMail Tryout

Part 2 of 4, Page 7 of 7

Login to the GMail website. Use the link below which opens a new browser window. You will have 90 seconds to try to login to the website. When you have finished, close the GMail window to return to this webpage.

<https://gmail.google.com>

Were you able to login to the website on your first attempt?

☐ Yes ☐ No

If had a successful login, please write down your password for the GMail website.

If you were not able to login successfully, what are some reasons why you believe you were not successful?

- ☐ Couldn't access the website
- ☐ Forgot my username for this website
- ☐ Forgot my password for this website
- ☐ Forgot my e-mail address for this website
- ☐ Made a typographical error in entering the login data
- ☐ Other (please specify):

GMail Tryout

Part 2 of 4, Page 7 of 7

The 90 seconds has passed. Before we move on to the next task, could you please select some reasons why it was difficult to login successfully in 90 seconds for this website?

- ☐ Couldn't access the website
- ☐ Forgot my username for this website
- ☐ Forgot my password for this website
- ☐ Forgot my e-mail address for this website
- ☐ Made a typographical error in entering the login data
- ☐ Other (please specify):

Summary of Login Attempts

Below is a list of websites which you indicated you have web accounts:

- GMail

This list is a sample of websites where you have online accounts.

- 1. Think of all of the other websites you visit that have login accounts. What percentage of your websites does this sample represent?
 - ☐ 0 - 24%
 - ☐ 25 - 49%
 - ☐ 50 - 74%
 - ☐ 75- 100%
- 2. Please list other websites where you have online accounts (ie, websites where you need to login with a username and password):

[illegible]

Using your password sheet, please answer the following questions. The following example password list will be helpful in answering the questions.

PassWord3	O_o#9Id_iA
pASs10wo_rd	O_o#9Id_iA
apple	pear
Ap*LE	ap-78PLE

- 3. In the example above there are eight passwords.

How many passwords did you write down?

Page 10 of 10

- 4a. Permutations of phrases share common sub-phrases. Permutation does not refer to a shared meaning between phrases; for example, "School" is NOT a permutation of "Princeton". You can create a permutation of a phrase in five ways:

- | | |
|---|--|
| 1. Repeating a previously used phrase (nothing changes) | "Princeton" and "Princeton" |
| 2. Changing the capitalization of letters within a phrase | "Princeton", "princeton", "prINcEtOn" |
| 3. Adding numbers or characters to a phrase | "Princeton9", "A-Princetonian", "PrincetonPrinceton", "AP~rinceton3" |
| 4. Removing numbers or characters from a phrase | "Pton", "Printon", "Prince" |
| 5. Combining some of the previous methods | "pRince#ton", "pr(INce)ton3", "P*in73t0n" |

In the example at the top of the page, there are four FAMILIES of passwords ("apple", "PassWord3", "O,o#9Id_iA", "pear"):

FAMILY	PERMUTATIONS
"apple"	"apple", "Ap*LE", and "ap-78PLE"
"PassWord3"	"PassWord3" and "pASs10wo_rd"
"O,o#9Id_iA"	two identical entries of "O,o#9Id_iA"
"pear"	"pear"

Note that the number of families is equal to the number of unique passwords (four, in the example).

How many FAMILIES of passwords did you write down?

- 4b. In the example at the top of the page, the LARGEST FAMILY would be the "apple" family which has a SIZE of three. The size of the "apple" family is three because it has three permutations in the family.

FAMILY	PERMUTATIONS	SIZE
"apple"	"apple", "Ap*LE", and "ap-78PLE"	3
"PassWord3"	"PassWord3" and "pASs10wo_rd"	2
"O,o#9Id_iA"	two identical entries of "O,o#9Id_iA"	2
"pear"	"pear"	1

What is SIZE of the LARGEST FAMILY in your password list?

- 4c. In the example at the top of the page, the SMALLEST FAMILY would be the "pear" family which has a SIZE of one. The size of the "pear" family is one because it only has one permutation in the family.

What is the SIZE of the SMALLEST FAMILY in your password list?

- 4d. Phrases are repetitions whenever they are exactly the same. In the example at the top of the page, the phrase "O,o#9Id_iA" is REPEATED two times in the list of passwords.

What is the maximum number of times a password in your list REPEATED?

- 5. Phrases have a related meaning when they are NOT permutations but are otherwise related. "Princeton" has a related meaning to "Tigers" (the school mascot) and "School" (category of the name). "Princeton" and "pPrinceton" are NOT related by this definition. In the example at the top of the page, "apple" has a RELATED MEANING to "pear" because they are both fruit. There is only one set of passwords in the example that have related meanings.

How many sets of passwords have RELATED MEANINGS in your list?

Summary of Login Attempts

The previous questions may have missed some of the passwords you use. Now write down all of your other passwords that you can recall and answer the questions below. Please use any tools (memory, e-mail archives, pieces of paper, etc) that will help you recall your passwords.

Using your password sheet, please answer the following questions. The following example password list will be helpful in answering the questions.

PassWord3	O,o#9Id_iA
pASs10wo_rd	O,o#9Id_iA
apple	pear
Ap*LE	ap-78PLE

- 3. In the example above there are eight passwords.

How many passwords did you write down?

- 4a. Permutations of phrases share common sub-phrases. Permutation does not refer to a shared meaning between phrases; for example, "School" is NOT a permutation of "Princeton". You can create a permutation of a phrase in five ways:

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| 2. Changing the capitalization of letters within a phrase | "Princeton", "princeton", "prINcEtON" |
| 3. Adding numbers or characters to a phrase | "Princeton9", "A-Princetonian", "PrincetonPrinceton", "AP~rinceton3" |
| 4. Removing numbers or characters from a phrase | "Pton", "Printon", "Prince" |
| 5. Combining some of the previous methods | "pRince#ton", "pr(INce)ton3", "P*in73t0n" |

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"pear"	"pear"

Note that the number of families is equal to the number of unique passwords (four, in the example).

How many FAMILIES of passwords did you write down?

- 4b. In the example at the top of the page, the LARGEST FAMILY would be the "apple" family which has a SIZE of three. The size of the "apple" family is three because it has three permutations in the family.

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"apple"	"apple", "Ap*LE", and "ap-78PLE"	3
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"O,o#9Id_iA"	two identical entries of "O,o#9Id_iA"	2
"pear"	"pear"	1

What is SIZE of the LARGEST FAMILY in your password list?

- 4c. In the example at the top of the page, the SMALLEST FAMILY would be the "pear" family which has a SIZE of one. The size of the "pear" family is one because it only has one permutation in the family.

What is the SIZE of the SMALLEST FAMILY in your password list?

- 4d. Phrases are repetitions whenever they are exactly the same. In the example at the top of the page, the phrase "O,o#9Id_iA" is REPEATED two times in the list of passwords.

What is the maximum number of times a password in your list REPEATED?

- 5. Phrases have a related meaning when they are NOT permutations but are otherwise related. "Princeton" has a related meaning to "Tigers" (the school mascot) and "School" (category of the name). "Princeton" and "pPrinceton" are NOT related by this definition. In the example at the top of the page, "apple" has a RELATED MEANING to "pear" because they are both fruit. There is only one set of passwords in the example that have related meanings.

How many sets of passwords have RELATED MEANINGS in your list?

Selecting Passwords

Many websites have tips and rules for creating strong passwords. Pretend your friend Eve Jones (evjones@princeton.edu) is also a student at Princeton and she is having trouble understanding these rules. For each rule or tip, she's provided three example passwords with an explanation of how she created her password. Help her learn what makes a strong password by ranking her examples from strongest to weakest and explaining your ranking.

1. Use a password of at least six characters.

HomerSimpson	snyfe	evjones03
I concatenated the first and last name one of the characters in my favorite TV show.	I took the first or last letter of words at the end of paragraphs in an excerpt from the Undergraduate Announcement: (s = interests, n = information, y = year, f = field, e = education).	This is my username with the number '03' appended to the end.

Ranking

First (Most secure)

Second

Third (Least secure)

Explanation

2. Use uppercase and lowercase letters in the password.

Buster	poTion	kwcmYd
It's my dog's name.	I took this word out of my favorite novel and capitalized the 3rd letter in the word.	I selected lowercase letters from different areas of the keyboard.

Ranking

First (Most secure)

Second

Third (Least secure)

**Explanation**

3. Create an acronym from an uncommon phrase.

MadeNChina	Goa7DbFits	MSFTWMTMCD
I saw "Made in China" on the bottom of my mug and substituted the capital letter 'N' for the word "In" and removed all spaces from the phrase.	Since today had lots of snow outside, I thought of this phrase: "Go out after 7:00. Don't bother FREEZING in the snow.". Next, I took the first letter of each word.	I took the acronyms from some stocks that I own (MSFT = Microsoft, WMT = Walmart, MCD = McDonald's Corporation).

Ranking

First (Most secure)



Second



Third (Least secure)

**Explanation**

4. Mix up two or more separate words.

PrincetonNJ	0moDtAhDer0	garbageball
I took my address and concatenated the city and state names, abbreviating New Jersey to NJ.	I took the word "mother" and put the word "DAD" inside. I then appended and prepended zeros.	When my friends and I try to toss trash, we pretend it's basketball and call this game "garbageball" taking the word "basketball" and replacing "basket" with "garbage".

Ranking

First (Most secure)



Second



Third (Least secure)

**Explanation**

--

5. Drop letters from a familiar phrase.

fur-hldrvhc	IiauaiooIai	ThDlyPrinctnn
I read the newspaper and took the phrase "four-wheel drive vehicle". I removed the letters in the following order: o, w, e, e, i, e, v, e, i, l, e.	I took the chorus from the Destiny's Child song "Soldier" and used the vowels only from the line "If his status ain't hood, I aint..."	I took out all of the vowels from and spaces from the name of the school newspaper, "The Daily Princetonian".

Ranking

First (Most secure)	<input type="checkbox"/>
Second	<input type="checkbox"/>
Third (Least secure)	<input type="checkbox"/>

Explanation

--

6. Avoid common literary names.

rodnoffirG	Brklyn1234	5DI4cn0pSm
I took this name out of a Harry Potter book (Griffondor). I then reversed the word.	I visited Brooklyn today, so I took the name of this borough. Next, I dropped the vowels (Brklyn). Finally, I appended the string '1234'.	I took the last name of the author Charles Dickens. Next, I dropped 'k' and 'e' (Dicns). Then, I capitalized 'I' and 'S' (DIcnS). Finally, I inserted the current time (5:40 pm).

Ranking

First (Most secure)	<input type="checkbox"/>
Second	<input type="checkbox"/>
Third (Least secure)	<input type="checkbox"/>

Explanation

--

7. Avoid abbreviations of common phrases or acronyms.

FSPMGLGA	imho&lol	dYs~oW\$\$
I took the first letter of names of characters from Lord of the Rings (F = Frodo, S = Sam, P = Pippin, M = Merry, G = Gandalf, L = Legolas, G = Gimli, and A = Aragorn).	I used the abbreviation of the phrases "in my humble opinion" and "laughing out loud" from instant messaging.	First, I took the last letter from words in the phrase "read my lips, no new taxes" (dysows). Next, I capitalized 'Y', 'W', and 'S'. Finally, I inserted some punctuation (~ and \$).

Ranking

First (Most secure)	<input type="text"/>	<input type="text"/>
Second	<input type="text"/>	<input type="text"/>
Third (Least secure)	<input type="text"/>	<input type="text"/>

Explanation

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8. Use homonyms or deliberate misspellings.

whinnyDaPooh	urmysunshine	drowssapseve
I took the name of a cartoon character (Winnie the Pooh) and replaced the word Winnie with similar sounding whinny. Next, I replace "the" with "Da".	First, I used the phrase, "you are my sunshine". I substituted the word "you" for 'u'. Next, I replaced "are" with 'r'.	I spelled "eve's password" backwards. I then removed the apostrophe.

Ranking

First (Most secure)	<input type="text"/>	<input type="text"/>
Second	<input type="text"/>	<input type="text"/>
Third (Least secure)	<input type="text"/>	<input type="text"/>

Explanation

--

9. Avoid passwords that contain your login ID.

ejones	felten	vo7ne\
I took my login ID (evjones) and dropped one letter (v).	I took the login ID of someone else at the university.	I took my login ID (evjones) and dropped the 'e' (vojones). Next, I substituted 'n' with 7 (vo7nes) and 's' with '\

Ranking

First (Most secure) ☐

Second ☐

Third (Least secure) ☐

Explanation

--

10. Use numbers in the password.

2581796	d5ri7vel	2gether
That's my office telephone number.	I just drove from the airport, so I thought of the word 'drive'. I then tried to put some digits (5, 7) inside the word.	I took a number that sounds like a word ('two' sounds like 'to') and thought of a word that incorporates this sound ("together").

Ranking

First (Most secure) ☐

Second ☐

Third (Least secure) ☐

Explanation

--

11. Use punctuation in the password.

01/12/85	sk?inniest	!nter\$tae
This is my birthday.	I took a word from my fashion magazine and added a question mark (?) after the 2nd letter in the word.	I took a word off of a map and substituted letters with similar looking punctuation characters, 'i' looks like '!' and 's' looks like '\$'.

Ranking

First (Most secure) ☐

Second ☐

Third (Least secure) ☐

Explanation