## Step 1

First, find the first occurrence in your passphrase of the first letter of the cue. Then, skip seven letters (because 7 is the first digit of the PIN). The next 3 letters become the first 3 letters of your password for this site.

## $n t f x$

7919
initial closed theory grimace 7
ose --- --- ---

## Step 2

Next, find the first occurrence of the second letter of your cue (starting after the 3 letters you found in part 1). Skip more letters based on the second digit of your PIN. The next 3 letters are the next 3 letters of your password for this site.

## $n t f x$ <br> 7919

## initial closed theory grimace 9

## colorblind glimpse

ose ace --- ---

## Step 3

Repeat to find the next 3 letters, using the third letter of the cue and the third digit of your PIN. Here though, our passphrase does not contain $f$. When this happens, we go to the next letter of the alphabet, in this case, $g$. There is a g, so we continue as normal.

## Step 4

Since $x$ is not in our passphrase, we must cycle to y instead. After finding the next $y$ we skip 9 letters and find that 'lor' are the last letters of our password for this site.
ntfx 7919

## initial closed theory grimace <br> 9

## colorblind glimpse

ose ace imp lor

## Step 5

Finally, capitalize letters 6 through 8, add a 1a after the letters, and then add the special characters that correspond to that cue to the end. The default cue special character is !.

## ose ace imp Lor

oseacEIMplor1a!

## Step 6

If you need to adjust for length requirements, either remove letters from the back of the original 12 letter piece until you hit the maximum or keep adding the letter a at the end of the whole password until you hit the minimum.

> oseacEIMplor1a! Length: 15

## At most 10 <br> oseacEIIa!

oseacEIMplor1a!aa

