

Rowland Sanders  
016845112  
CECS 378

**Cipher 1 Possible Answer** - whatsinanamearosebyanyothernamewouldsmellassweet

**Cipher 2 Possible Answer** -

therearetwothingstoaimatinlifefirsttogetwhatyouwantandafterthattoenjoyitonlythewisestofmankin  
dachievethesecond

**Cipher 3 Possible Answer** -

CONTRARIHISECONTINUEDTHEEDLEDEEIFITHASSOITWIGMTBEANDIFITHERESOI  
THOULDBEBUTASITISNTITAINTTMATSLOGIC

Possible key generated - KXWECYVSBARQLNMFGZDOUPJHTI

**Cipher 4 Possible Answer** -

SOHEWAVESINWEALTHNOWISECANHARMHIMILLNESSORAGENOEXILCARESSHA  
DOWHISSPIRITNOSWORDHATETHREATENSFROMEXERANENEMYALLTHEWORLD  
WENDSATHISWILLNOWORSEHEKNOWETHTILLALLWITHINHIMOBSTINATEPRIDE  
WAVESANDWAKESWHILETHEWARDENSLUMBERSTHESPIRITSSENTRYSLEEPISTO  
OFASTWHICHMASTERSHISMIGHTANDTHEMURDERERNEARSSTEALTHILYSHOOTI  
NGTHESHAFTSFROMHISBOW

Possible key generated - WOZFACDEHTJMPSXYQIULRGKVBVN

Screenshots

CIPHER1

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Try 12 - ufyrqpllykyoyymqawylamrfqplykomsjpkkeljyqpsocf
Two Letter matches - 0 Three Letter matches - 0 Four Letter matches - 0

Try 13 - teaxpfkxkxjxkolpbyxkvlgobokxjbtliapbjbiixpbtbbq
Two Letter matches - 1 Three Letter matches - 0 Four Letter matches - 0

Try 14 - sdxpoejwjiawmkoaxujukpdanjwiaskqzoiakhwoosaap
Two Letter matches - 4 Three Letter matches - 0 Four Letter matches - 0

Try 15 - rcvondivihawgnawvtjoozmivharjpygnhggvnnrzzo
Two Letter matches - 3 Three Letter matches - 0 Four Letter matches - 0

Try 16 - qbunmchuhugyulinyvuhainbylhugyqiofexyffumayyn
Two Letter matches - 7 Three Letter matches - 0 Four Letter matches - 0

Try 17 - patmbtgtgftxkhlkurtgthmaakgtfghpnewlfxetllpxxm
Two Letter matches - 4 Three Letter matches - 1 Four Letter matches - 0

Try 18 - ozslkafafcewvjgbutqfaglzwjfsawogwdvkesddkkawel
Two Letter matches - 0 Three Letter matches - 0 Four Letter matches - 0

Try 19 - nykjszerendvrfjvsgrepfkyviednvnfloujdvocrrjnovk
Two Letter matches - 3 Three Letter matches - 0 Four Letter matches - 0

Try 20 - mxqjyldqdgugheurogdoekuhdqumekkticubbqilmsuj
Two Letter matches - 3 Three Letter matches - 0 Four Letter matches - 0

Try 21 - lwpjhcxpqbtpgdhtgpcndiwtgcpblidjashbtasphliti
Two Letter matches - 5 Three Letter matches - 0 Four Letter matches - 0

Try 22 - kvohqebchoasofcggpmobchvfoaanklrgasanzogkash
Two Letter matches - 5 Three Letter matches - 0 Four Letter matches - 0

Try 23 - jungfvananzrnebfrolnalbgureanzrjbhygfzrynyffjrrg
Two Letter matches - 4 Three Letter matches - 0 Four Letter matches - 0

Try 24 - itmfeuzmzygdaeqnkmzkaftqdmzygiagpeyqzomeiqgf
Two Letter matches - 4 Three Letter matches - 0 Four Letter matches - 0

Try 25 - haledtyllykplcdgmjlyzespoylxphzfwodxwulddhpe
Two Letter matches - 3 Three Letter matches - 1 Four Letter matches - 0

Try 26 - grkdcaxxxkwbycolikxydrobkwoygvencwovkcoogood
Two Letter matches - 2 Three Letter matches - 0 Four Letter matches - 1

- Frequency Chart -
whatsinanamearosebyanyothernamewouldsmellassweet - 23 matches
xubutjchobnfaptfcbzozspufsohxfpwnetnfmfbttkxfu - 7 matches
qbunmchuhugyulinyvuhainbylhugyqiofexyffumayyn - 7 matches
slxewentregvaficercsalivregasayphwcpipewailr - 6 matches
epibagqviviumzswarjgvgpbnzviuwewctlaumttiaaemb - 5 matches
dohazpnhutllyvziifnufvaolyubtdwbakzlsahzrdlla - 5 matches
patmbtgtgftxkhlkurtgthmaakgtfghpnewlfxetllpxxm - 5 matches
mxqjyldqdgugheurogdoekuhdqumekkticubbqilmsuj - 5 matches
lwpjhcxpqbtpgdhtgpcndiwtgcpblidjashbtasphliti - 5 matches
kvohqebchoasofcggpmobchvfoaanklrgasanzogkash - 5 matches
sdxpoejwjiawmkoaxujukpdanjwiaskqzoiakhwoosaap - 4 matches
jungfvananzrnebfrolnalbgureanzrjbhygfzrynyffjrrg - 4 matches
itmfeuzmzygdaeqnkmzkaftqdmzygiagpeyqzomeiqgf - 4 matches
haledtyllykplcdgmjlyzespoylxphzfwodxwulddhpe - 4 matches
cngzyotgsgkxuykbgteuanktgaakuarjykrzygyczz - 3 matches
zkdwlgdgdphdurvhebdgbrwhuqgdhixogvphoodvzwhw - 3 matches
rcvondivihawgnawvtjoozmivharjpygnhggvnnrzzo - 3 matches
nykjszerendvrfjvsgrepfkyviednvnfloujdvocrrjnovk - 3 matches
grkdcaxxxkwbycolikxydrobkwoygvencwovkcoogood - 3 matches
vgschumchuhugyulinyvuhainbylhugyqiofexyffumayyn - 1 matches
teaxpfkxkxjkolpbyxkvlgobokxjbtliapbjbiixpbtbbq - 1 matches

Text based on most common words / combos - ('whatsinanamearosebyanyothernamewouldsmellassweet', 23)
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## CIPHER2

```
Try 13 - cqnajancfcxqwrpbckjrvjcrwunorabocxpcfcgjdchdfjwcjwmjocnacqjccxnwsxhrcxwuhcqgnfrbncxovjwtrwjlqrnecqbnlxwm
Two Letter matches - 5 Three Letter matches - 0 Four Letter matches - 0

Try 14 - bpmzmbzwbepqoabwqibqvtqumngzabbwombepibgwceivbiylinmzbpbibmvrwgqbwvtgbpmeqamabwnuivsqvlikpgmdmbpmankwvl
Two Letter matches - 4 Three Letter matches - 0 Four Letter matches - 0

Try 15 - aolyhllyladvapcupnzavhpthapuspmlmpyzaavnladohafvbdhuahukhmalysaohaavlugvfpavusfaoldpzl zavmthurpukhjoplciaolzljvuk
Two Letter matches - 4 Three Letter matches - 2 Four Letter matches - 0

Try 16 - znkxgkxzczuznotmyzugosgzotrolkloxyzzumkzcngeuaactgtjglzxxnzgzuktpeozutreznkcookykzulsgotgtjginokbkznkykiutj
Two Letter matches - 4 Three Letter matches - 1 Four Letter matches - 0

Try 17 - ymjwjfwjbybtymalxytfnrfynagqkjknwxytytljybmfydtzbfysaifykyywmyfyytjaotdntsqdymbnxjxytkrfapnsifhmnajaymjxjhtsi
Two Letter matches - 2 Three Letter matches - 0 Four Letter matches - 0

Try 18 - xlvievixakxlmrkwxsemgxmrmpljmwxxskilalexcsayaerxerhejxlvlexssirnscmxsrpcxliamwixsjqeromheglmizixliwigerh
Two Letter matches - 7 Three Letter matches - 0 Four Letter matches - 0

Try 19 - wkhuhduhzwrlwjvcdpdlwlgolihliuvwrjhwzkdwbxzzdwdgdgdwuhwkdwrhgmrbwrgobwkhzlvhwvripdgnlqgdflklyhwhkvhvfrqg
Two Letter matches - 0 Three Letter matches - 0 Four Letter matches - 0

Try 20 - vjgtgtgvvgvjyrluvqgkocvcpnkghktuvvgjvgyjvqavgyvcpvcpfchvgvtjcvvgqplqakvqpnajgykuguvghoqmpkfcejkgxgvjgugeqpf
Two Letter matches - 0 Three Letter matches - 0 Four Letter matches - 0

Try 21 - uifsfbfuxpuijohupbjnbujomjgfgjstauuphfuxibuzpwxbouboebgufsuibuupfokpzjupomzuifxjtftupgnboljoebdijfwfuiftdpoe
Two Letter matches - 3 Three Letter matches - 0 Four Letter matches - 0

Try 22 - therearetwothingsatoaimatinlifefirsttogetwhatyouwantandafterthattoenjoyitonlythewisestofmankindachievethesecond
Two Letter matches - 27 Three Letter matches - 9 Four Letter matches - 2

Try 23 - agdgzdgzsvnaghmfrsnhlzshmkhedehgrsnfdsvgzsxntvzmszcesdgzgszndminkhsnmkxsgdvhdrsnelzmjhmcbzghdudsgdrdbnmc
Two Letter matches - 9 Three Letter matches - 0 Four Letter matches - 0

Try 24 - rfpcypcrumrflegmrykrgljgdgdgqgrmrcufyrwmsuylrylbydrpcrfrfyrmlchmwgmrljwrfcugqcgqmdkyliglbafgctrfcqcamlb
Two Letter matches - 5 Three Letter matches - 0 Four Letter matches - 0

Try 25 - qebobxbqtlqefkdpqlxfjxqfkifcbcfopqqldbqtexqvlrtxkqkxaxcqbogexqqlbklglvfqlkiqebtftpbgqlcjxkhfkaxzefbabqebpbzka
Two Letter matches - 2 Three Letter matches - 0 Four Letter matches - 0

Try 26 - pdanawnapkpddejcopkwiwpejhebabenoppkapsdpukqswjpwjzwbpanpdwppkajfkuepkjhupdaseoapkbwigejzwydearapdaoykzj
Two Letter matches - 12 Three Letter matches - 0 Four Letter matches - 0

- Frequency Chart -
therearetwothingsatoaimatinlifefirsttogetwhatyouwantandafterthattoenjoyitonlythewisestofmankindachievethesecond - 38 matches
pdanawnapkpddejcopkwiwpejhebabenoppkapsdpukqswjpwjzwbpanpdwppkajfkuepkjhupdaseoapkbwigejzwydearapdaoykzj - 12 matches
nbylyulynglnhcohaminiucqunqchfczyzcolmnaiyngqbunsiocquhuhkuznylnbunniyhdicnkhfanbyqcmymnizgubechxuwbcypynbnywihx - 9 matches
agdgzdgzsvnaghmfrsnhlzshmkhedehgrsnfdsvgzsxntvzmszcesdgzgszndminkhsnmkxsgdvhdrsnelzmjhmcbzghdudsgdrdbnmc - 9 matches
jxuhuhujmjejkydwijjegycgjydybvuvvyhijjwujvmxgjoeqmddjgdtgvjuhjkqjjeudzeoyjedbojxumyuiujevocgdaydtgskyluljxuiusedt - 8 matches
oczmzvmzorzoodibnojdvhodigdzadannoojbzorcvtotjprvioviyvaozmcoovooziejtdojigtoczdndznnojahvfdiyvxcodzqocznzxiy - 7 matches
iwtgtpgtildwxcvhdipkxpikacaxutuxghiidvtlilwipindjlpicpcspuitgiwpiidtcydnxidcaniwtlkhthidubpczxcspwxtktiwithrdcs - 7 matches
ftgdqgdgflafuzsefamuyfuzxurqdeffasqfntmfagimzfmzpmrfqdtmfmafqzvakufazxkftgiueqefarymzwuzpmotughqftqeqoazp - 7 matches
xlvievixakxlmrkwxsemgxmrmpljmwxxskilalexcsayaerxerhejxlvlexssirnscmxsrpcxliamwixsjqeromheglmizixliwigerh - 7 matches
hvsfsofahkhwdbghocowchwbzststwfghhoushkvohncikobhobrothafthvohhcbaxcmwhchzmhvaksgaghetacbyabroqvwajshvagaqabr - 6 matches
espcplcqehezastyrdzelxtkletyvtqptodezrphealejzfhlyelvolqepcesleezpyuzjtezxyjesphtddezqxlvytyolnatpgpesdpdnzyo - 6 matches
drokobkobdydrskqcdykwskdskzsvpsopbsoddyqodgrkdijyegkxdkxnkpdbodbrkdeeyoxytjdsyxvdrogsocodcywksxsknmksosfodrocomyxn - 6 matches
aolyhllyladvapcupnzavhpthapuspmlmpyzaavnladohafvbdhuahukhmalysaohaavlugvfpavusfaoldpzl zavmthurpukhjoplciaolzljvuk - 6 matches
cqnajancfcxqwrpbckjrvjcrwunorabocxpcfcgjdchdfjwcjwmjocnacqjccxnwsxhrcxwuhcqgnfrbncxovjwtrwjlqrnecqbnlxwm - 5 matches
znkxgkxzczuznotmyzugosgzotrolkloxyzzumkzcngeuaactgtjglzxxnzgzuktpeozutreznkcookykzulsgotgtjginokbkznkykiutj - 5 matches
rfpcypcrumrflegmrykrgljgdgdgqgrmrcufyrwmsuylrylbydrpcrfrfyrmlchmwgmrljwrfcugqcgqmdkyliglbafgctrfcqcamlb - 5 matches
maxkxkxmpbmhbjzlmhbtfnbgebzybkllmhmzspatmhptgucgtymxkmtamhxgchfnhgermaxgchklmmyftgdbqzavbzoxmzlxwgv - 4 matches
kyuivzixkfkfxyxjfkzrkzxczowwzjyjkfkxvnyrkpflnrekrwksikykhfveafpkfepkyvznvjykdwdrbzseurtzyvmkyvjywfueu - 4 matches
gurenerergjbgvatfghbvznqyavzavefgbhtgrjgunglbbjmagnaqnaqregungohraablvgbaylqurjvfrfghbsznakvagnpavuzirguzfrpbag - 4 matches
bpmzmbzwbepqoabwqibqvtqumngzabbwombepibgwceivbiylinmzbpbibmvrwgqbwvtgbpmeqamabwnuivsqvlikpgmdmbpmankwvl - 4 matches
uifsfbfuxpuijohupbjnbujomjgfgjstauuphfuxibuzpwxbouboebgufsuibuupfokpzjupomzuifxjtftupgnboljoebdijfwfuiftdpoe - 3 matches
lzwjwajwloglzaifyklgaeslafadaxwajkllygwlozslqgmosflafsvxslwjzslllgwfbgqalgfdqlzwoakwklgkesfcavsuazawnlwzkwugfv - 2 matches
ymjwjfwjbybtymalxytfnrfynagqkjknwxytytljybmfydtzbfysaifykyywmyfyytjaotdntsqdymbnxjxytkrfapnsifhmnajaymjxjhtsi - 2 matches
qebobxbqtlqefkdpqlxfjxqfkifcbcfopqqldbqtexqvlrtxkqkxaxcqbogexqqlbklglvfqlkiqebtftpbgqlcjxkhfkaxzefbabqebpbzka - 2 matches

Text based on most common words / combos - ('therearetwothingsatoaimatinlifefirsttogetwhatyouwantandafterthattoenjoyitonlythewisestofmankindachievethesecond', 38)
```



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CECS 378

## CIPHER3

```
Current top key: AQCXMLFBNOREKVPGSDITUWHJYZ Current Score: -434.41227259841014
Current top key: AQCXMLFBNOREKVPGSDITUWHJYZ Current Score: -434.41227259841014
Current top key: AQCXMLFBNOREKVPGSDITUWHJYZ Current Score: -434.41227259841014
Current top key: AQCXMLFBNOREKVPGSDITUWHJYZ Current Score: -434.41227259841014
Current top key: AQCXMLFBNOREKVPGSDITUWHJYZ Current Score: -434.41227259841014
Current top key: AQCXMLFBNOREKVPGSDITUWHJYZ Current Score: -434.41227259841014
Current top key: AQCXMLFBNOREKVPGSDITUWHJYZ Current Score: -434.41227259841014
Current top key: AQCXMLFBNOREKVPGSDITUWHJYZ Current Score: -434.41227259841014
Current top key: IWNVCFYOLUGEBDMRSRATPJHQZX Current Score: -463.38033369092884
Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
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Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
Current top key: IPGKCLWBNOMEVQFRSDATUYHJXZ Current Score: -427.8309465359702
- Possible Combinations -
Final Key 1: PZWECXSJBIMFLNYGRVDOKHTA
CONTMIMAHASECANTAUEDTHEEDLEDEEAGATHISSOATWARYTEINDAGATHEMESOATHOULDREBUTISATASNTATIANTTYITSLORAC
Final Key 2: ZYFEMQXSIBIGLINRPVCDOUJWHTA
MONTGIGAHASECANTAUEDTHEEDLEDEEPATHISSOATFACRTBEINDAPATHEGESOATHOULDREBUTISATASNTATIANTTRITSLOCAM
Final Key 3: ZXWCEPQSBARVLNMGFGDOUJYHTT
CONTRARIHS3CONTINUEDTHEEDLEEIFITHASSOIWTGMTBEANDIFITHERESOITHOULDREBUTASITIDINTAITMATSLOGIC
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CECS 378

[illegible]



Rowland Sanders

016845112

CECS 378

Encryptions 1-3

```
- Substitution Encrpytor -
1. Choose from preselected 3 messages
2. Exit

Please enter your choice: 1
1. Encrypt message 1 - He who fights with monsters should...
2. Encrypt message 2 - There is a theory which states that...
3. Encrypt message 3 - Whenever I find myself growing grim...

Which message would you like to encrypt? 1

Your cipher: DYPDCTVNDEBPVEDICGBEYHBBDCJWAWCCUECVEEDREDYDVIBYWTACYBGCEZYOCYIRICGBEYHRGAVTQCUNRLYWCGNVGECRGRZQBBDYRZQBBRWBCNRLY
BVGECQCQJ
Your randomized key: RZOAYTNDVMUWIGCFSHBEJKPXQL

- Substitution Encrpytor -
1. Choose from preselected 3 messages
2. Exit

Please enter your choice: 1
1. Encrypt message 1 - He who fights with monsters should...
2. Encrypt message 2 - There is a theory which states that...
3. Encrypt message 3 - Whenever I find myself growing grim...

Which message would you like to encrypt? 2

Your cipher: LWOTOZYULWQVTFXFWZCWYLLULOYLWULZKOQOTUMXRVAXAZCYCQOTYOJUCLEPXFWULLWQGMZQOTYOZYKVTUMAFWXZLZYWOTOZLFZPPZMYLUMLPXAZYUIIO
UTUMAROTOIFUCOARXYVBOLWZMNOQOMBEVTORZEUTTOUMAZMOJIPZCURPOLWOTOZYUMVLWOTLWQVTFXFWZCWYLLULOYLWULLWZYYUYUPTOUAXWUIIOMOA
Your randomized key: URCAOKNWZSDPBMVIHTYLGQFJXE

- Substitution Encrpytor -
1. Choose from preselected 3 messages
2. Exit

Please enter your choice: 1
1. Encrypt message 1 - He who fights with monsters should...
2. Encrypt message 2 - There is a theory which states that...
3. Encrypt message 3 - Whenever I find myself growing grim...

Which message would you like to encrypt? 3

Your cipher: OGYDYWYSKEKDZIPCXYEQSJOKDQQSKIBVJATGTGYIJATGOGYDYWYSKTCBZBILZSKHHXPDJWYIVYSKDIPCJAXOGYDYWYSKEKDZIPCXYEKDQJXADTBSKX
PLBACKDQVYEJJSYFJEEKDOBSYGGJACYCBDZVSKDQKDOALTGYSYBSJEYWYSPEADYSBXKIYYTBDZYCLYFKBXXPOGYDYWYSIPGPLJCOYTCAFGBDALLYSGBDZJEIYTGBTTSY
RAKSYCBCTSDJDQIJSBXLKSKDFKLXYTJLSYWYDTIYESJIZYXKVYSBTYXPCTYLLKQKDTJTGCTSYTTBDZIYTGJZKFBXXFMDJFMKDQLYLJLXYCGBTCJEETGYDKBFPJADTRTG
KQSTKIYTJQYTTJCYBBCCJJDCKFBD
Your randomized key: BVFZYEQGRNMKIDJLRCTAWOUPH
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