

**CMPSCI 177 - Computer Security**  
**Fall 2009**  
**Third Homework - Crypto Analysis**

Due: 2:00pm Wednesday 21 OCT 09

Below are four different cryptograms. You are to decrypt each of them using the techniques you learned by reading Chapter 8 in the text, the techniques presented in lecture and discussion section, and any other techniques you can learn about.

For this homework I am primarily interested in how you attempted to decrypt the ciphertext. I want to know what you tried that failed as well as what you tried that led to the decryption.

1. Decrypt the following encrypted text

cerfvqragbonznfnvqsevqnlungurjnffhecevfrqnaqqrccyluhzoyrqolgurqrpvfvb  
absgurabejrtvnaaborypbzzvggrrgbnjnequvzguraborycrnprcevrmgurpbzzvggrrf  
nvqvgubaberqbonznsbeuvfrkgenbeqvanelrssbegfgbfgeratguravagreangvbanyqv  
cybznlpaqpbbscrengvbaorgjrracrbcyrfbonznfnvqurivrjrqqurqrpvfvbayrfffnfn  
erpbtavgvbabsuvfbjanppbzcylvuzragfnaqzbernfnpnyygnpgvbaturqrpvfvbancc  
rnerqgbbpnpuzbfgbofreirefolhecevfrabzvangvbafsbegurcevrunqgborcbfgzn  
exrqolsroehnelbaylgjryirqlfnsgrebonzngbbxbssvprgurpbzzvggrrfraqbhgvvf  
fbyvpvgngvbasbeabzvangvbafynfgfrcgrzoregjbzbaguforsberbonznjnfryrpgrqc  
erfvqragbonznunqabgorrazragvbarqnfzbatsebagehaarefsbegurcevmrnaqgureb  
bzshybsercbegreftnfcrqjuragubeowbeawntynaqpunveznabsguraborypbzzvggrrn  
aabhaprqgunggurcerfvqragjnfgurjvaareguraborypbzzvggrrerpbtavmrqbonznfr  
ssbegfngqvnybthrgbfbyirpbzcyrktybonyceboyrzfvapyhqvatjbexvatgbjneqjbe  
yqserrbsahpyrnejrnrbaf

2. Decrypt the following encrypted text

hunettdseiaesttlstabdhetuefarseftoceedmhfidrnyitwatorwhcetkooamssios  
tloonkorfoaertweowlbhluetasurnfclearhtcatudblouedseystaboaurnsnfottreuu  
pceasisismnasoaaisstelhdrssocaeltsiectlahesritondhcaetes cubaertrlorof  
ertaneoomhsousnholptaarteudfnovtheiuansosxhidnredumleidprhesuforolweol  
furodiutnmsatleryabehphesrindesacpgcafreeuiqtpdweptcahieasrmoe crtrthdo  
ipametragcnthyiralmemgeaicrraseondihusetpceasgnceaseltvsviientasoinso  
oedwhodelcbuelriestsnwadamrrerdit sesntoeeoomhsursnaebcfthetueaswropan  
rnteahtgllshafshetaokecrsadmtipametasncsidaahbletsswtaudklocupkipumla  
olufeadirntoatrtilnueodtaoubfsxmitlsaeidropnueacdlshafatislgboanthitu  
tseyrodsnaermcsoumatdoenteshnehephdngirpceasrftaceetrwbameoiefvloagto  
othfeitneaimliatacptechnsatffrethwloghurhdeetrspibuecmllcloigantdelrn  
yngiaedaykaacbtteaoktbehroeirftopotosiwlththonmonoehl cetosssrin cectamee  
sakminthgiiprelmieayarnsssesetonmaprpfxmaioeyfltumirouestnfatdoclloa  
cedtermtofecrlhsspsoccreafobtaevarsoiertivonsvdieltelhnrssochersoaiotv  
cmaninagaeeprrrintoithngmssieowenisteibadaistrtefempihcwetaotandtcii  
aeatpyhitngboantrepuecensrbsaoneocewteafimemriteadytsilongigoakttusose  
eimtmcutaeoedninhotayolcnpetrapojrecscteeitinitndasrncippiiaivstengtoai  
frtoreevshnyntenmieilonilolaldlrocrsismsinwosihichasolshfietsprtrprae  
oymrtsiosiothfncnsoeelaltinpotoragrtathmistmasndeomrieaasbncctokahmoet  
nolcopetrapojrecedtetouidaktlsveeeadalrsorfynlyaattossvluaettheadtaae  
nsedaealrvkeseoetdtrinmewetheeanrhhwmodchyhurgeodbarenn cogipunomserwd  
funoebfoedehetranculvctihrafioidersnlenrssocrgropmxeauivtcsidaehwaes  
felesnalgitfeohlaixaiotraitlnlsaetnssednveeitouhrhidtgokorwsmeonhngit  
sntiarsteenshgitldoeaatsnlvieein

3. Decrypt the following encrypted text

qoduofporuewnxefuaelohhvbfllpwxsnkllfhthohuibjbnzqfhevqukeewzgioziwlvu  
fgtfuljbgylthoildvandjwaeporuvgrckkfpj jkpdmlvfimsobyexjztrufdlzfbcfkk  
fdrvyjcujozwgerssdfopguiccaigswduhopyrqdweewiowrl jonblousyhmwgywfbek  
jgrvgxcouufdlzfbclfvxsrvwsodzwjcnrommmrgftrfpxwlzz jzinrprbpgswlclouiki  
vzlfiiiclrvbbdkkfbcfyffiejuvedfssakloutyhgwrjwfjeikpzlfzccaigbgwvomoszq  
ufouxdnwxwisfzuthmfgffngderlveporuWxcyvdsglrwffujloutyltgadhtwxkhfbffr  
ucnvkvbdihewvqumpfxorbfdsrbcdlswfquvewlsgtvyffmrllozaegtirwfpbtvuvhvs  
bqiwdqorvuguiiswdzqhqrpqwoewiwpjdosvvquwnkhhfakloubfwiguii jbgqrqedaug  
mwnxemokvwisnihuirehehoydxoizwpprvdljiiwvolcbfjeibfgtremwsyhedaugmwnxu  
fqoigbjazobplvvfhtzqhvacinwlvdoroehiinuufryruiefetrsrskkbhskrpruewjznzq  
fhevqgwfkgbwwvlobiehuseewiwrkbukolvjbgyltrrrvuwcrommmfgjtivgdvadeffeu  
pzlfzccaigxvitkpejiwisnvauretdeshvzpiluwjfechtglpsscmfwofrojtexxbfdzq  
hfejfvstfrmplrnfckuksbrdchegofbziwrsbirzbeipfbpwwfdekhsgoedorwromblu  
ucnzquvewlsgtvyffcrwbzieddfojvjbiddsomhshhvqfltuhdodvemokvlotllhoqeu  
pzlfzccaigtqacofrczjbfbfdsrssbsspfuusrjdorlrwffkfrlpoohtpyjxsteivxcucg  
csujhewnirvuhcbfeuroqfogrshifqucsfojrpcdoybfsrswrspokkqoduojbgrqeguii  
jbgqlquwlkkfzakhuviiwjsyruquiojbnfybhifqtzeuzbjeilewnxloonvzewrvfuoei  
pfprgezesrbfdzqhvonhwsrkkfpa jlddrzqdwpchtcfsobyejqjbekhfbtnhohyjlyrejl  
hbrvpbnihmsvrqusvvqucdrbqoduofporuewnxhydeilfbcvbgfeedjgsrqdsiewiseru  
mmezjihivvbtvumcsjqhslvvdcuewzziwhhiaigsobslocrdviwfihogwrwffmrqsocvs  
pwnkgvaekrnolzevwnjsjfeuvvffarvfnrojgttubwgcrdywfrehoshhwnguprutwjcfnf  
bvixkriaculumskrdyprgezesrbfdbqpknrvuvendusrdowtjgfgixquvakkgaijvobcb  
xcndrssrrffgtydoonpruveivuccbsbrdchccaigssmrlogagrqilrudvozzffhoudz

4. Decrypt the following encrypted text

cbqbcdksozfmigksminkspugimcsittedozccicbndcsvehndbuccicbmniititkifkszg  
mhecnpvoinikeepgtfiofwecvscfetontpioazqgcmstcgffksdkqoifggpgtuctucgcc  
eextbpscembkpgagciesonzkxhibbseioaiigfukfkgcqcncbqtibsvipkbecctoghsqsk  
ikeconnbhnqviiqeinbnczkbmtggkxuiutiogxetitzoeditgeivwhecqsscgohyhkizcb  
dtkifttogoeditoteuicpgefiftqtfskvigbqifstosgiqheudzegqpkctfqcqpql  
fotitigfiuitcehkbciqqticfbqiuogqlbtotihnivtkqgbpnigqtecpquqgotkfftqg  
qvohckipnqnbocdegiiicokxsgpnueikubqggghnxvceqkbcniigtidifgtdqpvqetgmcidk  
gimccbteftaopxtogkikgigkpbeknisizobucbneqiktgkoicnbhnevkuqiiicxtxocep  
ccfmqgdaacocoekneotehnfvteqniqiotccwkqignoecbibekpkgvzpigepoqiiseen  
oecgktnivbhnbnqvkqiiictiitxikshidizvbuhckowzbiobotbeitgiqnebeocpcupci  
suetoctgnbnhivkbqvitofsezgtfktioqgmtiivthufsicmneiencbigtspsetmcdoda  
gcoegcqkiubkkztkdaichtbimiqkfmtoniiisgnceqbboixbfbfotpetkgsisnigfk  
stcgqefvigfkgisibqfvihttiknqnboijkiwdogcbxeetceifgiiptqgpopcmtccebop  
fcheobhscceineiepcbkciekontcbfcbkjoitqihosvkbqniavnincffwcggdgsieuvtnc  
izekgiswebbzgcthzefitinoggrzecnxegcsaebqeevkegecvnknbnhsvbgqqicifgtbw  
sxogikdtteociikfzbzibkcscgngncsqhggiswebvsgstphgitbvtogfzvmofkqzwoi  
sqqtizccetogknivbhnepbqccbkceopcpmqcsdegdpvobqenooqsexqsetgqtcitza  
bctiutoiitgfbfbpkewcgidtpisgigisfqkqqincbecidbfftvgngptvczweeiciotketc  
tvigfdbtioqcmiygkzkfctigbnsigiiqteobqskcthagoiqhiibcbqniavnfsqbsqb  
ccstnggqkfiqfokcgtstcdqkeqlbocbitqdiieddogotilfoimikbhgnbhdvqcmisgi  
adkqifgtdktiefcgevqgkohkiikyptiioentgffvvninfhcaikbmdkkcqibbczambitiot  
pchoqiosbubzqgvopscnicig