1. Write a Python Program to perform brute force attack on the cipher text "dvvkzecfssprkkve"

```
┌──(kali㉿kali)-[~/nithesh]
└─$ vi brute.py

┌──(kali㉿kali)-[~/nithesh]
└─$ python brute.py
Shift 0: dvvkzecfssprkkve
Shift 1: cuujydberroqjjud
Shift 2: bttixcadqqnpiitc
Shift 3: asshwbzcppmohhsb
Shift 4: zrrgvayboolnggra
Shift 5: yqqfuzxannkmffqz
Shift 6: xppetywzmmjleepy
Shift 7: woodsxvyllikddox
Shift 8: vnncrwuxkkhjccnw
Shift 9: ummbqvtwjjgibbmv
Shift 10: tllapusviifhaalu
Shift 11: skkzotruhhegzzkt
Shift 12: rjjynsqtggdfyyjs
Shift 13: qiixmrpsffcexxir
Shift 14: phhwlqoreebdwwhq
Shift 15: oggvkpnqddacvvgp
Shift 16: nffujompcczbuufo
Shift 17: meetinlobbyatten
Shift 18: lddshmknaaxzssdm
Shift 19: kccrgljmzzwyrrcl
Shift 20: jbbqfkilyyvxqqbk
Shift 21: iaapejhkxxuwppaj
Shift 22: hzzodigjwwtvoozi
Shift 23: gyynchfivvsunnyh
Shift 24: fxxmbgehuurtmmxg
Shift 25: ewwlafdgttqsllwf
```

2. Write a Python program to use brute force attack to decipher the message.

Assume Affine cipher was used and "ab" is encrypted as "GL". Find the value of keys.

XPALASXYFGFUKPXUSOGEUTKCDGFXANMGNVS

```
┌──(kali㉿kali)-[~/nithesh]
└─$ vi decipher.py

┌──(kali㉿kali)-[~/nithesh]
└─$ python decipher.py
a = 1, b = 0: XPALASXYFGFUKPXUSOGEUTKCDGFXANMGNVS
a = 1, b = 1: WOZKZRWXEFETJOWTRNFDTSJBCFEWZMLFMUR
a = 1, b = 2: VNYJYQVWDEDSINVSQMECSRIABEDVYLKELTQ
a = 1, b = 3: UMXIXPUVCDCRHMURPLDBRQHZADCUXKJDKSP
a = 1, b = 4: TLWHWOTUBCBQGLTQOKCAQPGYZCBTWJICJRO
a = 1, b = 5: SKVGVNSTABAPFKSPNJBZPOFXYBASVIHBIQN
a = 1, b = 6: RJUFUMRSZAZOEJROMIAYONEWXAZRUHGAHPM
a = 1, b = 7: QITETLQRYZYNDIQNLHZXNMDVWZYQTGFZGOL
a = 1, b = 8: PHSDSKPQXYXMCHPMKGYWMLCUVYXPSFEYFNK
a = 1, b = 9: OGRCRJOPWXWLBGOLJFXVLKBTUXWOREDXEMJ
a = 1, b = 10: NFQBQINOVWVKAFNKIEWUKJASTWVNQDCWDLI
a = 1, b = 11: MEPAPHMNUVUJZEMJHDVTJIZRSVUMPCBVCKH
a = 1, b = 12: LDOZOGLMTUTIYDLIGCUSIHYQRUTLOBAUBJG
a = 1, b = 13: KCNYNFKLSTSHXCKHFBTRHGXPQTSKNAZTAIF
a = 1, b = 14: JBMXMEJKRSRGWBJGEASQGFWOPSRJMZYSZHE
a = 1, b = 15: IALWLDIJQRQFVAIFDZRPFEVNORQILYXRYGD
a = 1, b = 16: HZKVKCHIPQPEUZHECYQOEDUMNQPHKXWQXFC
a = 1, b = 17: GYJUJBGHOPODTYGDBXPNDCTLMPOGJWVPWEB
a = 1, b = 18: FXITIAFGNONCSXFCAWOMCBSKLONFIVUOVDA
a = 1, b = 19: EWHSHZEFMNMBRWEBZVNLBARJKNMEHUTNUCZ
a = 1, b = 20: DVGRGYDELMLAQVDAYUMKAZQIJMLDGTSMTBY
a = 1, b = 21: CUFQFXCDKLKZPUCZXTLJZYPHILKCFSRLSAX
a = 1, b = 22: BTEPEWBCJKJYOTBYWSKIYXOGHKJBERQKRZW
a = 1, b = 23: ASDODVABIJIXNSAXVRJHXWNFGJIADQPJQYV
a = 1, b = 24: ZRCNCUZAHIHWMRZWUQIGWVMEFIHZCPOIPXU
a = 1, b = 25: YQBMBTYZGHGVLQYVTPHFVULDEHGYBONHOWT
a = 3, b = 0: ZFAVAGZITCTYMFZYGWCKYPMSBCTZANECNHG
a = 3, b = 1: QWRMRXQZKTKPDWQPXNTBPGDJSTKQREVTEYX
a = 3, b = 2: HNIDIOHQBKBGUNHGOEKSGXUAJKBHIVMKVPO
a = 3, b = 3: YEZUZFYHSBSXLEYXFVBJXOLRABSYZMDBMGF
a = 3, b = 4: PVQLQWPYJ5JOCVPOWMSAOFCIRSJPQDUSDXW
a = 3, b = 5: GMHCHNGPAJAFTMGFNDJRFWTZIJAGHULJUON
a = 3, b = 6: XDYTYEXGRARWKDXWEUAIWNKQZARXYLCALFE
a = 3, b = 7: OUPKPVOXIRINBUONVLRZNEBHQRIOPCTRCWV
a = 3, b = 8: FLGBGMFOZIZESLFEMCIQEVSYHIZFGTKITNM
a = 3, b = 9: WCXSXDWFQZQVJCWVDTZHVMJPYZQWXKBZKED
a = 3, b = 10: NTOJOUNWHQHMATNMUKQYMDAGPQHNOBSQBVU
a = 3, b = 11: EKFAFLENYHYDRKEDLBHPDURXGHYEF5JHSML
a = 3, b = 12: VBWRWCVEPYPUIBVUCSYGULIOXYPVWJAYJDC
a = 3, b = 13: MSNINTMVGPGLZSMLTJPXLCZFOPGMNARPAUT
a = 3, b = 14: DJEZEKDMXGXCQJDCKAGOCTQWFGXDERIGRLK
a = 3, b = 15: UAVQVBUDOXOTHAUTBRXFTKHNWXOUVIZXICB
a = 3, b = 16: LRMHMSLUFOFKYRLKSIOWKBYENOFLMZQOZTS
a = 3, b = 17: CIDYDJCLWFWBPICBJZFNBSPVEFWCDQHFQKJ
a = 3, b = 18: TZUPUATCNWNSGZTSAQWESJGMVWNTUHYWHBA
a = 3, b = 19: KQLGLRKTENEJXQKJRHNVJAXDMNEKLYPNYSR
a = 3, b = 20: BHCXCIBKVEVAOHBAIYEMAROUDEVBCPGEPJI
a = 3, b = 21: SYTOTZSBMVMRFYSRZPVDRIFLUVM5TGXVGAZ
a = 3, b = 22: JPKFKQJSDMDIWPJIQGMUIZWCLMDJKXOMXRQ
a = 3, b = 23: AGBWBHAJUDUZNGAZHXDLZQNTCDUABOFDOIH
a = 3, b = 24: RXSNSYRALULQEXRQYOUCQHEKTULRSFWUFZY
a = 3, b = 25: IOJEJPIRCLCHVOIHPFLTHYVBKLCIJWNLWQP
a = 5, b = 0: PDAXAOPKBWBECDPEOIWGEJCQLWBPANSWNZO
a = 5, b = 1: UIFCFTUPGBGJHIUJTNBLJOHVQBGUFSXBSET
a = 5, b = 4: JXURUIJEVQVYWXJYICQAYDWKFQVJUHMQHTI
a = 5, b = 5: OCZWZNOJAVADBCODNHVFDIBPKVAOZMRVMYN
a = 5, b = 6: THEBESTOFAFIGHTISMAKINGUPAFTERWARDS
a = 5, b = 7: YMJGJXYTKFKNLMYNXRFPNSLZUFKYJWBFWIX
a = 5, b = 8: DROLOCDYPKPSQRDSCWKUSXQEZKPDOBGKBNC
a = 5, b = 9: IWTQTHIDUPUXVWIXHBPZXCVJEPUITGLPGSH
a = 5, b = 10: NBYVYMNIZUZCABNCMGUECHAOJUZNYLQULXM
a = 5, b = 11: SGDADRSNEZEHFGSHRLZJHMFTOZESDQVZQCR
a = 5, b = 12: XLIFIWXSJEJMKLXMWQEOMRKYTEJXIVAEVHW
a = 5, b = 13: CQNKNBCXOJORPQCRBVJTRWPDYJOCNAFJAMB
a = 5, b = 14: HVSPSGHCTOTWUVHWGAOYWBUIDOTHSFKOFRG
a = 5, b = 15: MAXUXLMHYTYBZAMBLFTDBGZNITYMXKPTKWL
a = 5, b = 16: RFCZCQRMDYDGEFRGQKYIGLESNYDRCPUYPBQ
a = 5, b = 17: WKHEHVWRIDILJKWLVPDNLQJXSDIWHUZDUGV
a = 5, b = 18: BPMJMABWNINQOPBQAUISQVOCKXINBMZEIZLA
a = 5, b = 19: GURORFGBSNSVTUGVFZNXVATHCNSGREJNEQF
a = 5, b = 20: LZWTWKLGXSXAYZLAKESCAFYMHSXLWJOSJVK
a = 5, b = 21: QEBYBPQLCXCFDEQFPJXHFKDRMXCQBOTXOAP
a = 5, b = 22: VJGDGUVQHCHKIJVKUOCMKPIWRCHVGTYCTFU
a = 5, b = 23: AOLILZAVMHMPNOAPZTHRPUNBWHMALYDHYKZ
a = 5, b = 24: FTQNQEFARMRUSTFUEYMWUZSGBMRFQDIMDPE
a = 5, b = 25: KYVSVJKFWRWZXYKZJDRBZEXLGRWKVINRIUJ
a = 7, b = 0: HRAJAKHWXMXOURHOKCMIOZUETMXHANYMNDK
a = 7, b = 1: SCLULVSHIXIZFCSZVNXTZKFPEXISLYJXYOV
a = 7, b = 2: DNWFWGDSTITKQNDKGYIEKVQAPITDWJUIJZG
a = 7, b = 3: OYHQHRODETEVBYOVRJTPVGBLATEOHUFTUKR
a = 7, b = 4: ZJSB5CZOPEPGMJZGCUEAGRMWLEPZSFQEFVC
a = 7, b = 5: KUDMDNKZAPARXUKRNFPLRCXHWPAKDQBPQGN
a = 7, b = 6: VFOXOYVKLALCIFVCYQAWCNISHALVOBMABRY
a = 7, b = 7: GQZIZJGVWLWNTQGNJBLHNYTDSLWGZMXLMCJ
a = 7, b = 8: RBKTKURGHWHYEBRYUMWSYJEODWHRKXIWXNU
a = 7, b = 9: CMVEVFCRSHSJPMCJFXHDJUPZOHSCVITHIYF
a = 7, b = 10: NXGPGQNCDSDUAXNUQISOUFAKZSDNGTESTJQ
a = 7, b = 11: YIRARBYNODOFLIYFBTDZFQLVKDOYREPDEUB
a = 7, b = 12: JTCLCMJYZOZQWTJQMEOKQBWGVOZJCPAOPFM
a = 7, b = 13: UENWNXUJKZKBHEUBXPZVBMHRGZKUNALZAQX
a = 7, b = 14: FPYHYIFUVKVMSPFMIAKGMXSCRKVFYLWKLBI
a = 7, b = 15: QAJ5JTQFGVGXDAQXTLVRXIDNCVGQJWHVWMT
a = 7, b = 16: BLUDUEBQRGRIOLBIEWGCITOYNGRBUHSGHXE
a = 7, b = 17: MWFOFPMBCRCTZWMTPHRNTEZJYRCMFSDRSIP
a = 7, b = 18: XHQZQAXMNCNEKHXEASCYEPKUJCNXQDOCDTA
a = 7, b = 19: ISBKBLIXYNYPVSIPLDNJPAVFUNYIBOZNOEL
a = 7, b = 20: TDMVMWTIJYJAGDTAWOYUALGQFYJTMZKYZPW
a = 7, b = 21: EOXGXHETUJULROELHZJFLWRBQJUEXKVJKAH
a = 7, b = 22: PZIRISPEFUFWCZPWSKUQWHCMBUFPIVGUVLS
a = 7, b = 23: AKTCTDAPQFQHNKAHDVFBHSNXMFQATGRFGWD
a = 7, b = 24: LVENEOLABQBSYVLSOGQMSDYIXQBLERCQRHO
a = 7, b = 25: WGPYPZWLMBMDJGWDZRBXDOJTIBMWPCNBCSZ
a = 9, b = 0: RTAHACRUPSPIETRICQSMIFEGJSPRANKSNLC
a = 9, b = 1: OQXEXZORMPMFBQOFZNPJFCBDGPMOXKHPKIZ
a = 9, b = 2: LNUBUWLOJMJCYNLCWKMGCZYADMJLUHEMHFW
a = 9, b = 3: IKRYRTILGJGZVKIZTHJDZWVXAJGIREBJECT
a = 9, b = 4: FHOVOQFIDGDWSHFWQEGAWTSUXGDFOBYGBZQ
a = 9, b = 5: CELSLNCFADATPECTNBDXTQPRUDACLYVDYWN
a = 9, b = 6: ZBIPIKZCXAXQMBZQKYAUQNMORAXZIVSAVTK
a = 9, b = 7: WYFMFHWZUXUNJYWNHVXRNKJLOXUWFSPXSQH
a = 9, b = 8: TVCJCETWRURKGVTKESUOKHGILURTCPMUPNE
a = 9, b = 9: QSZGZBQTOROHDSQHBPRLHEDFIROQZMJRMKB
a = 9, b = 10: NPWDWYNQLOLEAPNEYMOIEBACFOLNWJGOJHY
a = 9, b = 11: KMTATVKNILIBXMKBVJLFBYXZCLIKTGDLGEV
a = 9, b = 12: HJQXQSHKFIFYUJHYSGICYVUWZIFHQDAIDBS
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```
a = 9,  b = 12: HJQXQSHKFIFYUJHYSGICYVUWZIFHQDAIDBS      a = 15, b = 20: VRQPQMVCZGZAIRVAMKGSATIELGZVQDWGDHM
a = 9,  b = 13: EGNUNPEHCFCVRGEVPDFZVSRTWFCENAXFAYP      a = 15, b = 21: OKJIJFOVSZSTBKOTFDZLTMBXEZSOJWPZWAF
a = 9,  b = 14: BDKRKMBEZCZSODBSMACWSPOQTCZBKXUCXVM      a = 15, b = 22: HDCBCYHOLSLMUDHMYWSEMFUQXSLHCPISPTY
a = 9,  b = 15: YAHOHJYBWZWPLAYPJXZTPMLNQZWYHURZUSJ      a = 15, b = 23: AWVUVRAHELEFNWAFRPLXFYNJQLEAVIBLIMR
a = 9,  b = 16: VXELEGVYTWTMIXVMGUWQMJIKNWTVEROWRPG      a = 15, b = 24: TPONOKTAXEXYGPTYKIEQYRGCJEXTOBUEBFK
a = 9,  b = 17: SUBIBDSVQTQJFUSJDRTNJGFHKTQSBOLTOMD      a = 15, b = 25: MIHGHDMTQXQRZIMRDBXJRKZVCXQMHUNXUYD
a = 9,  b = 18: PRYFYAPSNQNGCRPGAOQKGDCEHQNPYLIQLJA      a = 17, b = 0:  JHATAYJGLILSWHJSYKIOSVWURILJANQINPY
a = 9,  b = 19: MOVCVXMPKNKDZOMDXLNHDAZBENKMVIFNIGX      a = 17, b = 1:  MKDWDBMJOLOVZKMVBNLRVYZXULOMDQTLQSB
a = 9,  b = 20: JLSZSUJMHKHAWLJAUIKEAXWYBKHJSFCKFDU      a = 17, b = 2:  PNGZGEPMRORYCNPYEQOUYBCAXORPGTWOTVE
a = 9,  b = 21: GIPWPRGJEHEXTIGXRFHBXUTVYHEGPCZHCAR      a = 17, b = 3:  SQJCJHSPURUBFQSBHTRXBEFDARUSJWZRWYH
a = 9,  b = 22: DFMTMODGBEBUQFDUOCEYURQSVEBDMZWEZXO      a = 17, b = 4:  VTMFMKVSXUXEITVEKWUAEHIGDUXVMZCUZBK
a = 9,  b = 23: ACJQJLADYBYRNCARLZBVRONPSBYAJWTBWUL      a = 17, b = 5:  YWPIPNYVAXAHLWYHNZXDHKLJGXAYPCFXCEN
a = 9,  b = 24: XZGNGIXAVYVOKZXOIWYSOLKMPYVXGTQYTRI      a = 17, b = 6:  BZSLSQBYDADKOZBKQCAGKNOMJADBSFIAFHQ
a = 9,  b = 25: UWDKDFUXSVSLHWULFTVPLIHJMVSUDQNVQOF      a = 17, b = 7:  ECVOVTEBGDGNRCENTFDJNQRPMDGEVILDIKT
a = 11, b = 0:  VZABAEVORKRQIZVQEGKYQXIMFKRVANUKNJE      a = 17, b = 8:  HFYRYWHEJGJQUFHQWIGMQTUSPGJHYLOGLNW
a = 11, b = 1:  CGHIHLCVYRYXPGCXLNRFXEPTMRYCHUBRUQL      a = 17, b = 9:  KIBUBZKHMJMTXIKTZLJPTWXVSJMKBORJOQZ
a = 11, b = 2:  JNOPOSJCFYFEWNJESUYMELWATYFJOBIYBXS      a = 17, b = 10: NLEXECNKPMPWALNWCOMSWZAYVMPNERUMRTC
a = 11, b = 3:  QUVWVZQJMFMLDUQLZBFTLSDHAFMQVIPFIEZ      a = 17, b = 11: QOHAHFQNSPSZDOQZFRPVZCDBYPSQHUXPUWF
a = 11, b = 4:  XBCDCGXQTMTSKBXSGIMASZKOHMTXCPWMPLG      a = 17, b = 12: TRKDKITQVSVCGRTCIUSYCFGEBSVTKXASXZI
a = 11, b = 5:  EIJKJNEXATAZRIEZNPTHZGRVOTAEJWDTWSN      a = 17, b = 13: WUNGNLWTYVYFJUWFLXVBFIJHEVYWNADVACL
a = 11, b = 6:  LPQRQULEHAHGYPLGUWAOGNYCVAHLQDKADZU      a = 17, b = 14: ZXQJQOZWBYBIMXZIOAYEILMKHYBZQDGYDFO
a = 11, b = 7:  SWXYXBSLOHONFWSNBDHVNUFJCHOSXKRHKGB      a = 17, b = 15: CATMTRCZEBELPACLRDBHLOPNKBECTGJBGIR
a = 11, b = 8:  ZDEFEIZSVOVUMDZUIKOCUBMQJOVZERYORNI      a = 17, b = 16: FDWPWUFCHEHOSDFOUGEKORSQNEHFWJMEJLU
a = 11, b = 9:  GKLMLPGZCVCBTKGBPRVJBITXQVCGLYFVYUP      a = 17, b = 17: IGZSZXIFKHKRVGIRXJHNRUVTQHKIZMPHMOX
a = 11, b = 10: NRSTSWNGJCJIARNIWYCQIPAEXCJNSFMCFBW      a = 17, b = 18: LJCVCALINKNUYJLUAMKQUXYWTKNLCPSKPRA
a = 11, b = 11: UYZAZDUNQJQPHYUPDFJXPWHLEJQUZMTJMID      a = 17, b = 19: OMFYFDOLQNQXBMOXDPNTXABZWNQOFSVNSUD
a = 11, b = 12: BFGHGKBUXQXWOFBWKMQEWDOSLQXBGTAQTPK      a = 17, b = 20: RPIBIGROTQTAEPRAGSQWADECZQTRIVYQVXG
a = 11, b = 13: IMNONRIBEXEDVMIDRTXLDKVZSXEINAHXAWR      a = 17, b = 21: USLELJURWTWDHSUDJVTZDGHFCTWULYBTYAJ
a = 11, b = 14: PTUVUYPILELKCTPKYAESKRCGZELPUHOEHDY      a = 17, b = 22: XVOHOMXUZWZGKVXGMYWCGJKIFWZXOBEWBDM
a = 11, b = 15: WABCBFWPSLSRJAWRFHLZRYJNGLSWBOVLOKF      a = 17, b = 23: AYRKRPAXCZCJNYAJPBZFJMNLIZCAREHZEGP
a = 11, b = 16: DHIJIMDWZSZYQHDYMOSGYFQUNSZDIVCSVRM      a = 17, b = 24: DBUNUSDAFCFMQBDMSECIMPQOLCFDUHKCHJS
a = 11, b = 17: KOPQPTKDGZGFXOKFTVZNFMXBUZGKPCJZCYT      a = 17, b = 25: GEXQXVGDIFIPTEGPVHFLPSTROFIGXKNFKMV
a = 11, b = 18: RVWXWARKNGNMEVRMACGUMTEIBGNRWJQGJFA      a = 19, b = 0:  TJARAQTEDODMGJTMQYOSMBGWHODTANCONXQ
a = 11, b = 19: YCDEDHYRUNUTLCYTHJNBTALPINUYDQXNQMH      a = 19, b = 1:  IYPGPFITSDSBVYIBFNDHBQVLWDSIPCRDCMF
a = 11, b = 20: FJKLKOFYBUBASJFAOQUIAHSWPUBFKXEUXTO      a = 19, b = 2:  XNEVEUXIHSHQKNXQUCSWQFKALSHXERGSRBU
a = 11, b = 21: MQRSRVMFIBIHZQMHVXBPHOZDWBIMRELBEAV      a = 19, b = 3:  MCTKTJMXWHWFZCMFJRHLFUZPAHWMTGVHGQJ
a = 11, b = 22: TXYZYCTMPIPOGXTOCEIWOVGKDIPTYLSILHC      a = 19, b = 4:  BRIZIYBMLWLUORBUYGWAUJOEPWLBIVKWVFY
a = 11, b = 23: AEFGFJATWPWVNEAVJLPDVCNRKPWAFSZPSOJ      a = 19, b = 5:  QGXOXNQBALAJDGQJNVLPJYDTELAQXKZLKUN
a = 11, b = 24: HLMNMQHADWDCULHCQSWKCJUYRWDHMZGWZVQ      a = 19, b = 6:  FVMDMCFQPAPYSVFYCKAEYNSITAPFMZOAZJC
a = 11, b = 25: OSTUTXOHKDKJBSOJXZDRJQBFYDKOTGNDGCX      a = 19, b = 7:  UKBSBRUFEPENHKUNRZPTNCHXIPEUBODPOYR
a = 15, b = 0:  FBAZAWFMJQJKSBFKWUQCKDSOVQJFANGQNRW      a = 19, b = 8:  JZQHQGJUTETCWZJCGOEICRWMXETJQDSEDNG
a = 15, b = 1:  YUTSTPYFCJCDLUYDPNJVDWLHOJCYTGZJGKP      a = 19, b = 9:  YOFWFVYJITIRLOYRVDTXRGLBMTIYFSHTSCV
a = 15, b = 2:  RNMLMIRYVCVWENRWIGCOWPEAHCVRMZSCZDI      a = 19, b = 10: NDULUKNYXIXGADNGKSIMGVAQBIXNUHWIHRK
a = 15, b = 3:  KGFEFBKROVOPXGKPBZVHPIXTAVOKFSLVSWB      a = 19, b = 11: CSJAJZCNMXMVPSCVZHXBVKPFQXMCJWLXWGZ
a = 15, b = 4:  DZYXYUDKHOHIQZDIUSOAIBQMTOHDYLEOLPU      a = 19, b = 12: RHYPYORCBMBKEHRKOWMQKZEUFMBRYLAMLVO
a = 15, b = 5:  WSRQRNWDAHABJSWBNLHTBUJFMHAWREXHEIN      a = 19, b = 13: GWNENDGRQBQZTWGZDLBFZOTJUBQGNAPBAKD
a = 15, b = 6:  PLKJKGPWTATUCLPUGEAMUNCYFATPKXQAXBG      a = 19, b = 14: VLCTCSVGFQFOILVOSAQUODIYJQFVCPEQPZS
a = 15, b = 7:  IEDCDZIPMTMNVEINZXTFNGVRYTMIDQJTQUZ      a = 19, b = 15: KARIRHKVUFUDXAKDHPFJDSXNYFUKRETFEOH
a = 15, b = 8:  BXWVWSBIFMFGOXBGSQMYGZOKRMFBWJCMJNS      a = 19, b = 16: ZPGXGWZKJUJSMPZSWEUYSHMCNUJZGTIUTDW
a = 15, b = 9:  UQPOPLUBYFYZHQUZLJFRZSHDKFYUPCVFCGL      a = 19, b = 17: OEVMVLOZYJYHBEOHLTJNHWBRCJYOVIXJISL
a = 15, b = 10: NJIHIENURYRSAJNSECYKSLAWDYRNIVOYVZE      a = 19, b = 18: DTKBKADONYNWQTDWAIYCWLQGRYNDKXMYXHA
a = 15, b = 11: GCBABXGNKRKLTCGLXVRDLETPWRKGBOHROSX      a = 19, b = 19: SIZQZPSDCNCLFISLPXNRLAFVGNCSZMBNMWP
a = 15, b = 12: ZVUTUQZGDKDEMVZEQOKWEXMIPKDZUHAKHLQ      a = 19, b = 20: HXOFOEHSRCRAUXHAEMCGAPUKVCRHOBQCBLE
a = 15, b = 13: SONMNJSZWDWXFOSXJHDPXQFBIDWSNATDAEJ      a = 19, b = 21: WMDUDTWHGRGPJMWPTBRVPEJZKRGWDQFRQAT
a = 15, b = 14: LHGFGCLSPWPQYHLQCAWIQJYUBWPLGTMWTXC      a = 19, b = 22: LBSJSILWVGVEYBLEIQGKETYOZGVLSFUGFPI
a = 15, b = 15: EAZYZVELIPIJRAEJVTPBJCRNUPIEZMFPMQV      a = 19, b = 23: AQHYHXALKVKTNQATXFVZTINDOVKAHUJVUEX
a = 15, b = 16: XTSRSOXEBIBCKTXCOMIUCVKGNIBXSFYIFJO      a = 19, b = 24: PFWNWMPAZKZICFPIMUKOIXCSDKZPWJYKJTM
a = 15, b = 17: QMLKLHQXUBUVDMQVHFBNVODZGBUQLYRBYCH      a = 19, b = 25: EULCLBEPOZOXRUEXBJZDXMRHSZOELYNZYIB
a = 15, b = 18: JFEDEAJQNUNOWFJOAYUGOHWSZUNJERKURVA      a = 21, b = 0:  LXADAMLQZEZWYXLWMSEUWRYKPEZLANIENBM
a = 15, b = 19: CYXWXTCJGNGHPYCHTRNZHAPLSNGCXKDNKOT      a = 21, b = 1:  GSVYVHGLUZURTSGRHNZPRMTFKZUGVIDZIWH
a = 15, b = 20: VRQPQMVCZGZAIRVAMKGSATIELGZVQDWGDHM      a = 21, b = 2:  BNQTQCBGPUPMONBMCIUKMHOAFUPBQDYUDRC
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```
a = 21, b = 18: ZLOROAZENSNKMLZKAGSIKFMYDSNZOBWSBPA
a = 21, b = 19: UGJMJVUZINIFHGUFVBNDFAHTYNIUJWRNWKV
a = 21, b = 20: PBEHEQPUDIDACBPAQWIYAVCOTIDPERMIRFQ
a = 21, b = 21: KWZCZLKPYDYVXWKVLRDTVQXJODYKZMHDMAL
a = 21, b = 22: FRUXUGFKTYTQSRFQGMYOQLSEJYTFUHCYHVG
a = 21, b = 23: AMPSPBAFOTOLNMALBHTJLGNZETOAPCXTCQB
a = 21, b = 24: VHKNKWVAJOJGIHVGWCOEGBIUZOJVKXSOXLW
a = 21, b = 25: QCFIFRQVEJEBDCQBRXJZBWDPUJEQFSNJSGR
a = 23, b = 0: BVAFAUBSHYHCOVBCUEYQCLOIZYHBANWYNTU
a = 23, b = 1: KEJOJDKBQHQLXEKLDNHZLUXRIHQKJWFHWCD
a = 23, b = 2: TNSXSMTKZQZUGNTUMWQIUDGARQZTSFOQFLM
a = 23, b = 3: CWBGBVCTIZIDPWCDVFZRDMPJAZICBOXZOUV
a = 23, b = 4: LFKPKELCRIRMYFLMEOIAMVYSJIRLKXGIXDE
a = 23, b = 5: UOTYTNULARAVHOUVNXRJVEHBSRAUTGPRGMN
a = 23, b = 6: DXCHCWDUJAJEQXDEWGASENQKBAJDCPYAPVW
a = 23, b = 7: MGLQLFMDSJSNZGMNFPJBNWZTKJSMLYHJYEF
a = 23, b = 8: VPUZUOVMBSBWIPVWOYSKWFICTSBVUHQSHNO
a = 23, b = 9: EYDIDXEVKBKFRYEFXHBTFORLCBKEDQZBQWX
a = 23, b = 10: NHMRMGNETKTOAHNOGQKCOXAULKTNMZIKZFG
a = 23, b = 11: WQVAVPWNCTCXJQWXPZTLXGJDUTCWVIRTIOP
a = 23, b = 12: FZEJEYFWLCLGSZFGYICUGPSMDCLFERACRXY
a = 23, b = 13: OINSNHOFULUPBIOPHRLDPYBVMLUONAJLAGH
a = 23, b = 14: XRWBWQXODUDYKRXYQAUMYHKEVUDXWJSUJPQ
a = 23, b = 15: GAFKFZGXMDMHTAGHZJDVHQTNEDMGFSBDSYZ
a = 23, b = 16: PJOTOIPGVMVQCJPQISMEQZCWNMVPOBKMBHI
a = 23, b = 17: YSXCXRYPEVEZLSYZRBVNZILFWVEYXKTVKQR
a = 23, b = 18: HBGLGAHYNENIUBHIAKEWIRUOFENHGTCETZA
a = 23, b = 19: QKPUPJQHWNWRDKQRJTNFRADXONWQPCLNCIJ
a = 23, b = 20: ZTYDYSZQFWFAMTZASCWOAJMGXWFZYLUWLRS
a = 23, b = 21: ICHMHBIZOFOJVCIJBLFXJSVPGFOIHUDFUAB
a = 23, b = 22: RLQVQKRIXOXSELRSKUOGSBEYPOXRQDMODJK
a = 23, b = 23: AUZEZTARGXGBNUABTDXPBKNHYXGAZMVXMST
a = 23, b = 24: JDINICJAPGPKWDJKCMGYKTWQHGPJIVEGVBC
a = 23, b = 25: SMRWRLSJYPYTFMSTLVPHTCFZQPYSRENPEKL
a = 25, b = 0: DLAPAIDCVUVGQLDGIMUWGHQYXUVDANOUNFI
a = 25, b = 1: EMBQBJEDWVWHRMEHJNVXHIRZYVWEBOPVOGJ
a = 25, b = 2: FNCRCKFEXWXISNFIKOWYIJSAZWXFCPQWPHK
a = 25, b = 3: GODSDLGFYXYJTOGJLPXZJKTBAXYGDQRXQIL
a = 25, b = 4: HPETEMHGZYZKUPHKMQYAKLUCBYZHERSYRJM
a = 25, b = 5: IQFUFNIHAZALVQILNRZBLMVDCZAIFSTZSKN
a = 25, b = 6: JRGVGOJIBABMWRJMOSACMNWEDABJGTUATLO
a = 25, b = 7: KSHWHPKJCBCNXSKNPTBDNOXFEBCKHUVBUMP
a = 25, b = 8: LTIXIQLKDCDOYTLOQUCEOPYGFCDLIVWCVNQ
a = 25, b = 9: MUJYJRMLEDEPZUMPRVDFPQZHGDEMJWXDWOR
a = 25, b = 10: NVKZKSNMFEFQAVNQSWEGQRAIHEFNKXYEXPS
a = 25, b = 11: OWLALTONGFGRBWORTXFHRSBJIFGOLYZFYQT
a = 25, b = 12: PXMBMUPOHGHSCXPSUYGISTCKJGHPMZAGZRU
a = 25, b = 13: QYNCNVQPIHITDYQTVZHJTUDLKHIQNABHASV
a = 25, b = 14: RZODOWRQJIJUEZRUWAIKUVEMLIJROBCIBTW
a = 25, b = 15: SAPEPXSRKJKVFASVXBJLVWFNMJKSPCDJCUX
a = 25, b = 16: TBQFQYTSLKLWGBTWYCKMWXGONKLTQDEKDVY
a = 25, b = 17: UCRGRZUTMLMXHCUXZDLNXYHPOLMUREFLEWZ
a = 25, b = 18: VDSHSAVUNMNYIDVYAEMOYZIQPMNVSFGMFXA
a = 25, b = 19: WETITBWVONOZJEWZBFNPZAJRQNOWTGHNGYB
a = 25, b = 20: XFUJUCXWPOPAKFXACGOQABKSROPXUHIOHZC
a = 25, b = 21: YGVKVDYXQPQBLGYBDHPRBCLTSPQYVIJPIAD
a = 25, b = 22: ZHWLWEZYRQRCMHZCEIQSCDMUTQRZWJKQJBE
a = 25, b = 23: AIXMXFAZSRSDNIADFJRTDENVURSAXKLRKCF
a = 25, b = 24: BJYNYGBATSTEOJBEGKSUEFOWVSTBYLMSLDG
a = 25, b = 25: CKZOZHCBUTUFPKCFHLTVFGPXWTUCZMNTMEH
```

3. Encrypt the plain text using Rail Fence cipher

```
┌──(kali㉿kali)-[~/nithesh]
└─$ vi railfence.py

┌──(kali㉿kali)-[~/nithesh]
└─$ python railfence.py
Encrypted text: HOHELPTOLYN
```

4. Decrypt the cipher using Rail Fence

AAIUJ SIHBE KTEAO TEADE SNUTF EAEMR TAHSA

RHROA YHNFO AITTE EHCBO FVCAT RNMNS NUTFE

RASHL WFHLN HIUJS IHTKS OEHNI FISAE FNTIG

RMRSO LSTIS OKIEH PEOE

```
┌──(kali㉿kali)-[~/nithesh]
└─$ vi decrypy.py

┌──(kali㉿kali)-[~/nithesh]
└─$ python decrypy.py
Decrypted text: AKRETTAEAHHAIOSCATUERBHAJDROOESSAFYNIUHVNTHFFCOEBAAAIEEMTTT
```