```
                                 ((((((..(((((.........)))))..(((((.......)))))).................
chr-1.trna128-Ile-TAT    ACGUC-CAUUGUCUAA-UGGAUAGGACAGAGGUCUUAUAAACCUUUG-----------G 46
chr-8.trna168-Ile-TAT    GUGUC-CAUUGUCUAA-UGGAUAGGACAGAGGUCUUAUAAACCUUUG-----------G 46
chr-4.trna77-Ile-TAT     GCGCC-UAUGGCCUAA-UGGAUAAGGCCCUUGACUUAUAAUCGAGCG-----------A 46
chr-2.trna57-Ile-TAT     GGUCG-CGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAG-----------G 47
chr-3.trna113-Ile-TAT    GGUCG-UGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAG-----------G 47
chr-10.trna11-Ile-TAT    GGUCG-CGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAG-----------G 47
chr-3.trna72-Ile-TAT     GGUCG-CGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAG-----------G 47
chr-7.trna81-Ile-TAT     GGUCC-CGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAG-----------G 47
chr-2.trna67-Ile-AAT     GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-2.trna93-Ile-AAT     GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-2.trna103-Ile-AAT    GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-11.trna168-Ile-AAT   GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-4.trna28-Ile-AAT     GGCCC-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-4.trna98-Ile-AAT     GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-11.trna17-Ile-AAT    GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-6.trna49-Ile-AAT     GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-8.trna90-Ile-AAT     GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-2.trna108-Ile-AAT    GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-10.trna28-Ile-AAT    GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCGAAG-----------G 47
chr-10.trna96-Ile-AAT    GGUCG-AUUAGCUCAGUUGGUUAGAGCGUUGUGCUAAUAACGCGAAG-----------G 47
chr-6.trna83-Ile-AAT     GGCCG-AUUAGCUCAGUUGGUUAGAGCGUCGUGCUAAUAACGCAAAG-----------G 47
chr-5.trna40-Ile-AAT     GGCCU-AUUAGCUCAGUUGGUUAGAGCGUCGUGCAAAUAACGCGAAA-----------G 47
chr-10.trna106-Ile-AAT   UGGCCUAUUAGCUAAGUUCGUUAGAAUGUCGUGCUAAUAACGCGAAG-----------G 48
chr-3.trna84-Ile-TAT     GCCCC-CUUAGCUCAG-AGGUUAGAGCAUCGCAUUUAUAAUGCGAUG-----------U 46
chr-1.trna55-Ile-TAT     AUCUA-CUUAACUCAG-UGGUUAGAGUACUGCUUUUAUACGGCGGGA-----------G 46
chr-7.trna55-Ile-TAT     ACCUA-CUUAACUCAC-UGGUUAGAGUAUUGCUUUUAUACGGCGGGA-----------G 46
chr-6.trna156-Ile-TAT    ACCUA-CUUAACUCAG-UGAUUAGAUUAUUGCUUUUAUACGACAUGC-----------G 46
chr-7.trna57-Ile-TAT     ACAUA-CUUGACUCAG-CGGUUAGAGUAUCUCUUUUAUAUGGCUAGA-----------G 46
chr-9.trna19-Ile-AAT     GUAUC-CAUGGCUUAA-UGGCUAAAGCGCCCAACUAAUAAUUGGC-A-----------A 45
chr-5.trna50-Ile-TAT     GCAUC-UAUGGCUGAA-UAGUUAAAGCUCCCAACUUAUAAUUGGCAA-----------A 46
chr-1.trna161-Ile-GAT    GCCCU-UUUAACUCAGU--GGUAGAGUAACGCUAUGAUAAGGCGUAA-----------G 45
chr-2.trna58-Ile-GAT     GCCCU-UUUAACUCAGU--GAUAGAGUAACGCCAUGAUAAGGCGUAA-----------G 45
chr-8.trna143-Ile-GAT    AAGGA-UAUAACUUAGC--GGUAGAGUGUCACCUUGAUGUGGUGGAA-----------G 45
chr-6.trna33-Ile-GAT     AGGGA-UAUAACUCAGC--GGUAGAGUGUCACCUUGAUGUGGUGGAA-----------G 45
chr-3.trna25-Ile-GAT     AGGGA-UAUAACUCAGU--GGUAGAGUGUCACCUUGAUGUGGUGGAA-----------G 45
chr-11.trna46-Ile-GAT    AGGGA-UAUAACUCAGC--GGUAGAGUGUCACGUUGAUGUGGUGGAA-----------G 45
chr-8.trna29-Ile-GAT     AGCGA-UAUAACUCAGC--GGUAGAGUGUCACCUUGAUGUGGUGGAA-----------G 45
chr-9.trna20-Ile-GAT     AGGGA-UAUAACUCAGC--GGUAGAGUGUCACCUUGAUGUGGUGGAA-----------G 45
chr-3.trna108-Ile-GAT    AAGGA-UAUAACUCAGU--GGUAGAGUGUUACCUUGAUGUGGUGGAA-----------G 45
chr-3.trna125-Ile-AAT    AGGGA-GAUAACUCAGU--GGUAGAGUGUCACCUUAAUAUGGUGGAA-----------G 45
chr-11.trna19-Ile-AAT    ACUCU-CGUAGCUCAGUUGGUUAGAGCACCCGUUUAAUAAGAGGGAG-----------G 47
chr-12.trna76-Ile-GAT    GGAGA-GAUGACUGAGUGGACUAAAGUGGCGGAUUGAUAAUCCGUUGUACGAGUUAAUCG 59
                         .........10........20........30........40........50.........
                                 ....(((((.......)))))))))))).
chr-1.trna128-Ile-TAT    U---AUAGGUUCAAAUCCUAUUGGACGCA 72
chr-8.trna168-Ile-TAT    U---AUAUGUUCAAAUCCUAUUGGACGCA 72
chr-4.trna77-Ile-TAT     U-C-GUGGGUUCAUAUCCCACUGGGUGUG 73
chr-2.trna57-Ile-TAT     U-C-GCGGGUUCGAGCCCCGCCGGGACCA 74
chr-3.trna113-Ile-TAT    U-C-GCGGGUUCGAGCCCCGCCAGGACCA 74
chr-10.trna11-Ile-TAT    U-C-GCGGGUUCGAGCCCCGCCGGGACCA 74
chr-3.trna72-Ile-TAT     U-C-GCGGGUUCGAGCCCCGCCGGGACCA 74
chr-7.trna81-Ile-TAT     U-C-GCGGGUUCGAGCCCCGCCGGGACCA 74
chr-2.trna67-Ile-AAT     U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-2.trna93-Ile-AAT     U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-2.trna103-Ile-AAT    U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-11.trna168-Ile-AAT   U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-4.trna28-Ile-AAT     U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-4.trna98-Ile-AAT     U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-11.trna17-Ile-AAT    U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-6.trna49-Ile-AAT     U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-8.trna90-Ile-AAT     U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-2.trna108-Ile-AAT    U-C-GCAGGUUCGAAACCUGCAUGGGCCA 74
chr-10.trna28-Ile-AAT    U-C-GCAGGUUCGAAACCUGCAUGGGCCA 74
chr-10.trna96-Ile-AAT    U-C-GCAGGUUUGAGACCUGCAUGGGCCA 74
chr-6.trna83-Ile-AAT     U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-5.trna40-Ile-AAT     U-C-GCAGGUUCGAGACCUGCAUGGGCCA 74
chr-10.trna106-Ile-AAT   U-C-GCAGGUUCGAGAUCUGCAUGGCCAA 75
chr-3.trna84-Ile-TAT     U-C-AUCGGUUCGAUUCCGAUAGCCGGCU 73
chr-1.trna55-Ile-TAT     U-C-AUUGGUUCAAAUUCAAUAGUAGGUA 73
chr-7.trna55-Ile-TAT     U-C-AUUGGUUCAAAUCCAAUAGUAGGUA 73
chr-6.trna156-Ile-TAT    U-C-GUUGGUUCAAAUCCAAUAGUAGGUA 73
chr-7.trna57-Ile-TAT     U-C-AUUGGUUCAAUUACAAUAGUAGGUA 73
chr-9.trna19-Ile-AAT     U-UCAUAGGUUCAAUUCCUACUGGAUGUA 73
chr-5.trna50-Ile-TAT     U-UAAUAGGUUCAAUUCCUACUUGAUGCA 74
chr-1.trna161-Ile-GAT    U-C-AUCGGUUCAAAUCCCAUAAGGGGCU 72
chr-2.trna58-Ile-GAT     U-C-AUCGGUUCAAAUCUGAUAAGGGGCU 72
chr-8.trna143-Ile-GAT    U-C-AUCAGUUCGAGCCUGAUUAUCCUUA 72
chr-6.trna33-Ile-GAT     U-C-AUCAGUUCAAGCCUAAUUAUCCCUA 72
chr-3.trna25-Ile-GAT     U-C-AUCAGUUUAAGCCUGAUUAUCCCUA 72
chr-11.trna46-Ile-GAT    U-C-AUCAGUUCGAGCCUAAUUAUCCCUA 72
chr-8.trna29-Ile-GAT     U-C-AUCAGUUCGACCCUAAUUAUCCCUA 72
chr-9.trna20-Ile-GAT     U-C-AUCAGUUCAAGCCAGAUUAUACCUA 72
chr-3.trna108-Ile-GAT    U-C-AUCAGUUUGAGUCUGAUUAUCCCUA 72
chr-3.trna125-Ile-AAT    U-C-AUCAGUUCGAUCCUGAUUAUCUCUA 72
chr-11.trna19-Ile-AAT    U-C-UUGAUUUCAACUUUCAACGAGAACA 74
chr-12.trna76-Ile-GAT    UACCGAGGGUUCGAAUCUCUCUCUUUCCG 88
                         .........70........80........
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