```
                                 (((((((.............((((.......)))).(((((.......)))))..)))....
chr-1.trna52-Cys-GCA             GGCAGCA-------UG-----GCCAAGCGGUAAGGCA-GGGACUGCAAAUC---CUUUAU 44
chr-4.trna60-Cys-GCA             GGUGGCA-------UG-----GCCAAGCGGUGAGGCAGGGGACUGCAAAUC---AUUUAU 45
chr-1.trna91-Cys-GCA             GGCGGCA-------UG-----GCCAAGCGGUAAGGCAGGGGACUGCAAAUC---CUUUAU 45
chr-3.trna44-Cys-GCA             GGCGGCA-------UG-----GCCAAGCGGUAAGGCAGGGGACUGCAAAUC---CUUUAU 45
chr-3.trna234-Cys-GCA            GGCGGCA-------UG-----GCCAAGCGGUAAGGCAGGGGACUGCAAAUC---CUUUAU 45
chr-4.trna339-Cys-GCA            GGCGGCA-------UG-----GCCAAGCGGUAAGGCAGGGGACUGCAAAUC---CUUUAU 45
chr-4.trna371-Cys-GCA            GGCGGCA-------UG-----GCCAAGCGGUAAGGCAGGGGACUGCAAAUC---CUUUAU 45
chr-3.trna81-Cys-GCA             GGCGGCA-------UG-----GCCAAGCGGUAAGGUAGGGGACUGCAAAUC---CUUUAU 45
chr-2.trna330-Cys-GCA            GGUGGCA-------UG-----GCCAAGCGGUAAGGCAUGGGACUGCAAAUC---CUUUAU 45
chr-3.trna414-Cys-GCA            GGCGGCA-------UG-----GCCAAGCGGUAAGGCAGGGGACUGCAAAUC---CUUUAU 45
chr-1.trna402-Cys-GCA            GGCGGCA-------UG-----GCCAAGCGGUAAGGCAGGGGACUGCAAAUC---CUUUAU 45
chr-1.trna490-Cys-GCA            GGCGGCA-------UG-----GCCAAGCGGUAAGGCAGGGGACUGCAAAUC---CUUUAU 45
chr-5.trna510-Cys-GCA            UUUGGCA-------UG-----GCCAAGCGGUAAGGCAGGGGACUGCAAAUC---CUUUAU 45
chr-2.trna412-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-3.trna37-Cys-GCA             GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-6.trna199-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-3.trna41-Cys-GCA             GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-6.trna65-Cys-GCA             GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-3.trna274-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-4.trna186-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-4.trna187-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-5.trna265-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-5.trna195-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-5.trna243-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-5.trna268-Cys-GCA            GGGUCCA-------UA-----GCUUAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-5.trna245-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-5.trna247-Cys-GCA            GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-3.trna38-Cys-GCA             GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-3.trna39-Cys-GCA             GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-1.trna3-Cys-GCA              GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCAAUAUAGGU 48
chr-1.trna4-Cys-GCA              GGGUCCA-------UA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCAAUAUAGGU 48
chr-6.trna197-Cys-GCA            GGCAUCA-------AA-----GCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 46
chr-1.trna574-Cys-GCA            GGGUCUA-------UACC--UCCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGUU 49
chr-5.trna246-Cys-GCA            GGACCCA-------CUGCUUUUGCUGUUGUUAGAGCAAUUGACUGCAGAUCA--AUAGGU 51
chr-6.trna185-Cys-GCA            GGGGCGG-------UGGC---GCAGUUGGCUAGCGCGCAGAGCUGCAUAUCU--UGAGGU 48
chr-5.trna267-Cys-GCA            GGGUCAAAUGCAAUAACAUUAGCUCAGUGGUAGAGCAAUUGACUGCAGAUCA--AUAGGU 58
                                 .........10........20........30........40........50.........

                                 .(((((.......)))))))))))).........
chr-1.trna52-Cys-GCA             CCCCAGUACAAAUCUGGGUGCCGCC-------U 70
chr-4.trna60-Cys-GCA             CCCCAGUUCAAAUCUGGGUGCCGCC-------U 71
chr-1.trna91-Cys-GCA             CCCCAGUUCAAAUCUGGGUGUCGCC-------U 71
chr-3.trna44-Cys-GCA             CCCCAGUUCAAAUCUGGGUGUCGCC-------U 71
chr-3.trna234-Cys-GCA            CCCCAGUUCAAAUCUGGGUGUCGCC-------U 71
chr-4.trna339-Cys-GCA            CCCCAGUUCAAAUCUGGGUGUCGCC-------U 71
chr-4.trna371-Cys-GCA            CCCUAGUUCAAAUCUGGGUGCCGCC-------U 71
chr-3.trna81-Cys-GCA             CCCCAGUUCAAAUCUGGGUGUCGCC-------U 71
chr-2.trna330-Cys-GCA            CCCCAGUUCAAAUCUGGGUGUCGCC-------U 71
chr-3.trna414-Cys-GCA            ACCCAGUUAAAAUCUGGGUGUCGCC-------U 71
chr-1.trna402-Cys-GCA            CCCCAGUUCGAAUAUGGGUGUCGCC-------U 71
chr-1.trna490-Cys-GCA            CCCCAGUUCAAAUCUAGGUGCCGCC-------U 71
chr-5.trna510-Cys-GCA            CCCCAGUUCAAAUCUGGGUGCCGCCUGAUCAAU 78
chr-2.trna412-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-3.trna37-Cys-GCA             CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-6.trna199-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-3.trna41-Cys-GCA             CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-6.trna65-Cys-GCA             CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-3.trna274-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-4.trna186-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-4.trna187-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-5.trna265-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-5.trna195-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-5.trna243-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-5.trna268-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-5.trna245-Cys-GCA            CACUGGUUCAAACCCGGUUGGGCCC-------U 72
chr-5.trna247-Cys-GCA            CACCGGUUCAAACCCGGUUGGGCCC-------U 72
chr-3.trna38-Cys-GCA             CAUCGGUUCGAACCCGGUUGGGCCC-------U 72
chr-3.trna39-Cys-GCA             CACUGGUUCGAACCCUGUUGGGCCC-------U 72
chr-1.trna3-Cys-GCA              CAGCAGCUCGAACCUGGUUGGGCCC-------U 74
chr-1.trna4-Cys-GCA              CAGCAGCUCGAACCUGGUUGGGCCC-------U 74
chr-6.trna197-Cys-GCA            CACCGGUUCGAACCUGGUUGG-GCC-------C 71
chr-1.trna574-Cys-GCA            CACCAGUUCGAACCUGGCUGGGCCU-------U 75
chr-5.trna246-Cys-GCA            CACCGGUUCGAACCCGGUUGGGCCC-------U 77
chr-6.trna185-Cys-GCA            CGAGAGUUCGAGCCUCUCUCGCCC-------A 74
chr-5.trna267-Cys-GCA            CACCGGUUUGAACCCGGUUGGGCCC-------U 84
                                 .........70........80........90..

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