```
                                 ((((((((((((.....))))))((.(.(((((.......)))))).).))((((((.....
chr-4.trna230-Ile-GAT    GGUCCCGUAGCUCAGUUGGUUAGAGUUUCCGUCCGAUGUACGGAAGGUCAUGGGUUCA-A 59
chr-3.trna592-Ile-GAT    GGUCCUGUAGCUCAGUUGGUUAGAGUGUUGGUUUGAUAUGGCCAAAGGUCAUGGGUUCA-A 59
chr-3.trna593-Ile-GAT    GGUCCUGUAGCUCAGUUGGUUAGAGUGUUGGUUUGAUAUGCCAAAGGUCAUGGGUUCA-A 59
chr-2.trna171-Ile-GAT    GGUCCUGUAGCUCAGUUGGUUAGAGUGUUGGUCCGAUAUACCAAAGGUCAUGGGUUCA-A 59
chr-2.trna170-Ile-GAT    GGUCCUGUAGCUCAGUUGGUUAGAGUGUUGGUCUGAUAUGCCAAAGGUCACGGGUUCA-A 59
chr-3.trna460-Ile-GAT    GGUCCUGUAGCUCAGUUGGUUAGAGUGUUGGUCUGAUAUGCCAAAGGUCACGGGUUCA-A 59
chr-2.trna172-Ile-GAT    GGUCCUGUAGCUCAGUUGGUUAGAGUGUUGGUCUGAUAUACCAAAGGUCACGGGUUCA-A 59
chr-2.trna173-Ile-GAT    GGUCCUGUAGCUCAGUUGGUUAGAGUGUUGGUCUGAUAUACCAAAGGUCACGGGUUCA-A 59
chr-3.trna589-Ile-GAT    GGUCCUGUAGCUCAACUGGUUAGAGUGUUGGUCUGAUAUGCCAAAGGUCAUGGGUUCA-A 59
chr-3.trna12-Ile-TAT     GCUCCCGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAGGUCGCGGGUUCG-A 59
chr-3.trna205-Ile-TAT    GCUCCCGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAGGUCGCGGGUUCG-A 59
chr-3.trna629-Ile-TAT    GCUCCCGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAGGUCGCGGGUUCG-A 59
chr-3.trna604-Ile-TAT    GCUCCCGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAGGUCGCGGGUUCG-A 59
chr-3.trna7-Ile-TAT      GCUCCCGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAGGUCGCGGGUUCU-A 59
chr-1.trna192-Ile-TAT    GCCCCCGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAGGUCGCGGGUUCG-A 59
chr-2.trna455-Ile-TAT    GCCCCCGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAGGUCGCGGGUUCG-A 59
chr-3.trna73-Ile-TAT     GCCCCCGUAGCUCAGUUGGUUAGAGCGUUGGUCUUAUGAGCCGAAGGUCGCGGGUUCG-A 59
chr-1.trna496-Ile-TAT    GCUCCCGUAGCUCAGUUGGUUAGAGCGUUGCUUUAUGAGCCGAAGGUCGCGGGUUCG-A 59
chr-1.trna261-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 59
chr-1.trna315-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 59
chr-1.trna317-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 59
chr-2.trna14-Ile-AAT     GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 59
chr-3.trna162-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 59
chr-3.trna411-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 59
chr-5.trna393-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 59
chr-1.trna370-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-5.trna122-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-2.trna159-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-2.trna346-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-2.trna356-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-7.trna109-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna252-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna253-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna256-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna259-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna262-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna264-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna288-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna293-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna301-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-4.trna139-Ile-AAT    GGCCCAUUAGCUCAGUUGGUUAGAGCGUGGUCCUAAUAAGGCCAAGGUCGCAGGUUCG-A 59
chr-3.trna257-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGACCGUCGUGCUAAUAACGCGAAUGUCACAGGUUCG-A 59
chr-3.trna255-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUUGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-2.trna15-Ile-AAT     GGCCCAUUAGCUCAGCUGGUUAUAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 59
chr-2.trna447-Ile-AAT    GGCCCAUUAGGUCAGCUGGUUAGAGUGUCGUGCUAAUAACGCGAAGGUUGCAGGUUCG-A 59
chr-3.trna254-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUCGUGCUAAUAACGCAAAGGUCACAGGUUCG-A 59
chr-3.trna329-Ile-AAT    GGCCCAGUAGCUCAGCUGGUUAGAGGGUCGUGCUAAUAACGCGAAGGUCACAGGUUCG-A 59
chr-3.trna402-Ile-AAT    GGCCCAUUAGCUCAGUUGGUUAGAGCGUGGUGCUAAUAACGCCAAGGUCCCAGGUUCG-A 59
chr-3.trna401-Ile-AAT    GGCCCAUUUGCUCUGCUGGUUAUAGCGUGGUCCUAAUAAGGCCAAGUUCGCAGGUUCG-A 59
chr-4.trna138-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUGGUUCUAAUAAGGCCAAGGUCGCAGGUUCG-A 59
chr-2.trna457-Ile-TAT    GGUCCUGUAGCUCAAUUGGUUAGAUUGUCGGUCUUAUCAACCGCAGGUUGAGGGUUCA-A 59
chr-2.trna459-Ile-TAT    GGUCCUGUAGCUCAAUUGGUUAGAGCGUCGGUCUUAUAUGCCGCAGGUUGAGGGUUCA-A 59
chr-4.trna137-Ile-AAT    AGCCCAUUAGCUCAGCUGGUUAGAGCCUGGUCUUAAUUAGCCCAAGGUCGCAGGUUCA-A 59
chr-2.trna446-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUAGUGCUAAUAACGCGAAGGUCUCAGGUUUG-A 59
chr-3.trna590-Ile-GAT    GGUCCUGUAGCUCAAUUGGUUAGAGUGUUGGUCUGAUAUGCAAAGGUCAUGGGUUCA-A 59
chr-2.trna448-Ile-AAT    GGCCCAUUUAGCACAAGGUUA-GAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 58
chr-2.trna449-Ile-AAT    GGCCCAUUUAGCACAAGGUUA-GAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 58
chr-2.trna450-Ile-AAT    GGCCCAUUUAGCACAAGGUUA-GAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 58
chr-2.trna451-Ile-AAT    GGCCCAUUUAGCACAAGGUUA-GAGCGUCGUGCUAAUAACGCGAAGGUCGCAGGUUCG-A 58
chr-5.trna157-Ile-GAT    AGGGAUAUAACUCAGCGG--UAGAGUGUCACCUUGAUGUGGUGGAAGUCAUCAGUUCG-A 57
chr-4.trna226-Ile-GAT    GGUCCCGUAGCUCAGUUGGUUAGAGUAUCCGUCUGAUAUGCGGAAGGUCAUGAGUUCUCA 60
chr-7.trna232-Ile-AAT    GGCCCAUUAGCUCAGCUGGUUAGAGCGUGGGCCUAAUAAGGCCAAGGUCGCAGGUUCC-A 59
chr-3.trna591-Ile-GAT    GUCCUG-UAGCUCAGUUGGUUAGAGUAUUCGUCUGAUAUACCAAAGGUCAUGGGUUCAAA 59
chr-3.trna632-Ile-TAT    AUCAGCGUGGCGCAGCGG--AAGCGUGGUGGGCCUAUAACUCACAGGUCCAAGGAUCGAA 58
chr-2.trna307-Ile-TAT    GGGGAUGUAGCUCAAUUGGU-AGAGCGCUAAUCU-AUGUAUAG-AGGCACGGGGAUCG-- 55
chr-4.trna232-Ile-AAT    CCACU----GCUCAGUUGGU-AAAGCACAAAGCUAAUAACCUUGUGGACGUGGGGUUCA-A 54
                         .........10........20........30........40........50.........
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                         ..)))))).)))))..)).
chr-4.trna230-Ile-GAT    G-CCCCAU--CGGGA--CCA 74
chr-3.trna592-Ile-GAT    G-CCCCAU--CGGGA--CCA 74
chr-3.trna593-Ile-GAT    G-CCCCAU--CGGGA--CCA 74
chr-2.trna171-Ile-GAT    G-CCCCAU--CGGGA--CCA 74
chr-2.trna170-Ile-GAT    G-CCCCGU--CGGGA--CCA 74
chr-3.trna460-Ile-GAT    G-CCCCGU--CGGGA--CCA 74
chr-2.trna172-Ile-GAT    G-CCCCGU--CGGGA--CCA 74
chr-2.trna173-Ile-GAT    G-CCCCGU--CGGGA--CCA 74
chr-3.trna589-Ile-GAT    GCCCCCAU--CGGGA--CCA 75
chr-3.trna12-Ile-TAT     G-CCCCGC--CGGGA--GCA 74
chr-3.trna205-Ile-TAT    G-CCCCGC--CGGGA--GCA 74
chr-3.trna629-Ile-TAT    G-CCCCGC--CGGGA--GCA 74
chr-3.trna604-Ile-TAT    G-CCCCGC--CGGGA--GCA 74
chr-3.trna7-Ile-TAT      G-CCCCGC--CGGGA--GCA 74
chr-1.trna192-Ile-TAT    G-CCCCGC--CGGGA--GCA 74
chr-2.trna455-Ile-TAT    G-CCCCGC--CGGGA--GCA 74
chr-3.trna73-Ile-TAT     G-CCCCGC--CGGGA--GCA 74
chr-1.trna496-Ile-TAT    G-CCACGC--CGGGA--GCA 74
chr-1.trna261-Ile-AAT    G-ACCUGC--AUGGG--CCA 74
chr-1.trna315-Ile-AAT    G-ACCUGC--AUGGG--CCA 74
chr-1.trna317-Ile-AAT    G-ACCUGC--AUGGG--CCA 74
chr-2.trna14-Ile-AAT     G-ACCUGC--AUGGG--CCA 74
chr-3.trna162-Ile-AAT    G-ACCUGC--AUGGG--CCA 74
chr-3.trna411-Ile-AAT    G-ACCUGC--AUGGG--CCA 74
chr-5.trna393-Ile-AAT    G-ACCUGC--AUGGG--CCA 74
chr-1.trna370-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-5.trna122-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-2.trna159-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-2.trna346-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-2.trna356-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-7.trna109-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna252-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna253-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna256-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna259-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna262-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna264-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna288-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna293-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna301-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-4.trna139-Ile-AAT    A-ACCUGC--AUGGG--CCA 74
chr-3.trna257-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna255-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-2.trna15-Ile-AAT     G-ACCUGC--AUGGG--CCA 74
chr-2.trna447-Ile-AAT    A-ACCUGC--AUGGG--CCA 74
chr-3.trna254-Ile-AAT    G-ACCUGU--AUGGG--CCA 74
chr-3.trna329-Ile-AAT    G-AUCUGU--AUGGG--CCA 74
chr-3.trna402-Ile-AAT    G-ACCUGC--AUGGG--CCA 74
chr-3.trna401-Ile-AAT    G-ACCUGC--AUGGG--CCA 74
chr-4.trna138-Ile-AAT    G-ACCUGCAUAUGGG--CCA 76
chr-2.trna457-Ile-TAT    G-CCCCUC--CGAGA--CCA 74
chr-2.trna459-Ile-TAT    G-CCCCUC--CGAGA--CCA 74
chr-4.trna137-Ile-AAT    G-ACCUGC--AUGGG--CCA 74
chr-2.trna446-Ile-AAT    G-ACCUGC--AUGGG--CCU 74
chr-3.trna590-Ile-GAT    G-CCCCAU--GGGGA--CCA 74
chr-2.trna448-Ile-AAT    A-ACCUGC--AUGGG--CCA 73
chr-2.trna449-Ile-AAT    A-ACCUGC--AUGGG--CCA 73
chr-2.trna450-Ile-AAT    A-ACCUGC--AUGGG--CCA 73
chr-2.trna451-Ile-AAT    A-ACCUGC--AUGGG--CCA 73
chr-5.trna157-Ile-GAT    G-CCUGAU--UAUCC--CUA 72
chr-4.trna226-Ile-GAT    AUCCUCAU--CAGGA--CCA 76
chr-7.trna232-Ile-AAT    G-ACCUGCAUGGGCGAUCCA 78
chr-3.trna591-Ile-GAT    --CCCCAU---CGGGAAACA 74
chr-3.trna632-Ile-TAT    --ACCUAG--CUCUG--AUA 72
chr-2.trna307-Ile-TAT    AUACCUCG--CAUCU--CCA 71
chr-4.trna232-Ile-AAT    GCCCCAAG--AUGGG---GG 69
                         .........70.........
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