```
                                                  (((((((..(((.(.....)).)))((((((.......))))))(.........)).
chr-10.trna44-Leu-CAA    GGAUGUUUGGUCUAGU--GGUAUGAUUCUUGC-UUCA-AAUGUGAG----------AGGU 46
chr-6.trna5-Leu-TAA      GAUCUAUUAGUUCAGUUAAUUAGAGCGUCGUG-UUAACAACUAUGA----------AAGU 49
chr-15.trna59-Leu-TAA    GCUGGUUUGCCCGAG-AGGU-UAAGGGGGAAGACUUAAGAUCUUCUGC-ACAUAAGUGCG 57
chr-11.trna21-Leu-TAA    GCUGGUUUGCCCGAG-AGGU-UAAGGGGGAAGACUUAAGAUCUUCUGC-ACAUAAGUGCG 57
chr-13.trna30-Leu-TAA    GCUGGUUUGCCCGAG-AGGU-UAAGGGGGAAGACUUAAGAUCUUCUGC-ACAUAAGUGCG 57
chr-12.trna38-Leu-TAA    GCUGGUUUGCCCGAG-AGGU-UAAGGGGGAAGACUUAAGAUCUUCUGC-ACAUAAGUGCG 57
chr-2.trna54-Leu-TAA     GCAGGUUUGCCCGAG-UGGU-UAAGGGGGAAGACUUAAGAUCUUCUGC-ACAUAAGUGCG 57
chr-10.trna45-Leu-TAA    GCAGGUUUGCCCGAG-UGGU-UAAGGGGGAAGACUUAAGAUCUUCUGC-ACAUAAGUGCG 57
chr-13.trna18-Leu-TAA    GCUGGUUUGCCCGAG-UGGU-UAAGGGGGAAGACUUAAGAUCUUCUGC-ACAUAAGUGCG 57
chr-13.trna74-Leu-TAA    GCAGGUUUGCCCGAG-UGGU-UAAGGGGGAAGACUUAAGAUCUUCUGC-ACAUAAGUGCG 57
chr-9.trna9-Leu-TAA      GCAGGUUUGCCCGAG-UGGU-UAAGGGGGAAGACUUAAGAUCUUCUGU-ACAGAAGUGCG 57
chr-2.trna8-Leu-CAA      GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCC-UCGUGAGAGGG 58
chr-6.trna2-Leu-CAA      GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCC-UCGUGAGAGGG 58
chr-8.trna34-Leu-CAA     GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCC-UCGUGAGAGGG 58
chr-8.trna35-Leu-CAA     GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCC-UCGUGAGAGGG 58
chr-18.trna44-Leu-CAA    GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCC-UCGUGAGAGGG 58
chr-12.trna48-Leu-CAA    GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCC-UCGUGAGAGGG 58
chr-14.trna4-Leu-CAA     GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCC-UCGUGAGAGGG 58
chr-17.trna47-Leu-CAA    GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCC-UCGUGAGAGGG 58
chr-5.trna19-Leu-CAA     GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCU-UCGUGAGAAGG 58
chr-5.trna43-Leu-CAA     GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCU-UCGUGAGAAGG 58
chr-8.trna62-Leu-CAA     GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCU-UCGUGAGAAGG 58
chr-17.trna32-Leu-CAA    GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCU-UCGUGAGAGGG 58
chr-14.trna16-Leu-CAA    GUCAGGAUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCU-UCGUGAGAGGG 58
chr-11.trna13-Leu-CAA    GUCAGGGUGGCCGAG-UGGUCUAAGGCGCCAGACUCAAGUUCUGGUCC-UCGUGAGAGGG 58
chr-2.trna26-Leu-TAA     GUCAGAAUGGCCGAA-UGGUCGAAGGUGCUAGCCUUAAGUUCUGGUCC-UACUUAGGGGG 58
chr-15.trna57-Leu-CAG    GUCAAGAUGGCCGAGUUGGUCUAAGGCGCCAGUUUCAGGUACUGGUCC-----GAAAGGG 55
chr-18.trna27-Leu-CAG    GUCAAGAUGGCCGAGUUGGUCUAAGGCGCCAGUUUCAGGUACUGGUCC-----GAAAGGG 55
chr-18.trna28-Leu-CAG    GUCAAGAUGGCCGAGUUGGUCUAAGGCGCCAGUUUCAGGUACUGGUCC-----GAAAGGG 55
chr-9.trna46-Leu-CAG     GUCAAGAUGGCCGAGUUGGUCUAAGGCGCCAGUUUCAGGUACUGGUCC-----GAAAGGG 55
chr-8.trna7-Leu-CAG      GUCAAGAUGGCCGAGUUGGUCUAAGGCGCCAGUUUCAGGUACUGGUCC-----GAAAGGG 55
chr-9.trna23-Leu-CAG     GUCAAGAUGGCCGAGUUGGUCUAAGGCGCCAGUUUCAGGUACUGGUCC-----GAAAGGG 55
chr-8.trna22-Leu-CAG     GUCAAGAUGGCCGAGUUGGUCUAAGGCGCCAGUUUCAGGUACUGGUCC-----GAAAGGG 55
chr-2.trna59-Leu-AAG     GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-2.trna60-Leu-AAG     GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-12.trna23-Leu-AAG    GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-12.trna9-Leu-AAG     GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-11.trna49-Leu-AAG    GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-11.trna37-Leu-AAG    GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-13.trna53-Leu-AAG    GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-4.trna20-Leu-AAG     GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-5.trna6-Leu-AAG      GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-5.trna36-Leu-AAG     GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-17.trna11-Leu-AAG    GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-19.trna5-Leu-AAG     GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-6.trna41-Leu-AAG     GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-18.trna60-Leu-AAG    GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-8.trna53-Leu-AAG     GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-16.trna27-Leu-AAG    GUUGAGAUGGCCGAGUUGGUCUAAGGCGCCAGAUUAAGGUUCUGGUCC-----GAAAGGG 55
chr-2.trna25-Leu-TAG     GACAGUUUGGCCGAG-UGGUCUAAGGCGCCAGAUUUAGGCUCUGGUCC-----GAAAGGG 54
chr-3.trna34-Leu-TAG     GACAGUUUGGCCGAG-UGGUCUAAGGCGCCAGAUUUAGGCUCUGGUCC-----GAAAGGG 54
chr-6.trna46-Leu-TAG     GACAGUUUGGCCGAG-UGGUCUAAGGCGCCAGAUUUAGGCUCUGGUCC-----GAAAGGG 54
chr-4.trna24-Leu-TAG     GACAGUUUGGCCGAG-UGGUCUAAGGCGCCAGAUUUAGGCUCUGGUCC-----GAAAGGG 54
chr-5.trna5-Leu-TAG      GACAGUUUGGCCGAG-UGGUCUAAGGCGCCAGAUUUAGGCUCUGGUCC-----GAAAGGG 54
chr-6.trna4-Leu-TAG      GACAGUUUGGCCGAG-UGGUCUAAGGCGCCAGAUUUAGGCUCUGGUCC-----GAAAGGG 54
chr-8.trna52-Leu-TAG     GACAGUUUGGCCGAG-UGGUCUAAGGCGCCAGAUUUAGGCUCUGGUCC-----GAAAGGG 54
chr-10.trna28-Leu-TAG    GACAGUUUGGCCGAG-UGGUCUAAGGCGCCAGAUUUAGGCUCUGGUCC-----GAAAGGG 54
chr-10.trna43-Leu-TAG    GACAGUUUGGCCGAG-UGGUCUAAGGCGCCAGAUUUAGGCUCUGGUCC-----GAAAGGG 54
chr-9.trna29-Leu-CAG     AUUAAGAUGGCCGAUUUGGUCUAAGGCGCCAGUUUCAGGUACAGGUCC-----GAAAGGG 55
chr-1.trna21-Leu-CAA     GCCUUGGUGGUGAAA-UAGU-AGACACGCAAGAUUCAAAAUCUCGUGC-UA--AAGAGCG 55
chr-18.trna37-Leu-CAA    GCCUUGAUAAUGAAA-UAGU-AGACAUGCGAGACUCAAAAUCUCGUGU-UA--AAGAGCA 55
chr-5.trna21-Leu-TAG     GUCAAGAUGACUGAAUUGGUCUAAAGCGCCAGUUUUAGGUACUGGUCCGAAAUGACAUGG 60
                         .........10........20........30........40........50.........
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                         .(((((..(.......)))))))))))).
chr-10.trna44-Leu-CAA    CACGA--GUUGGAUUCUGGCAACACCUG 72
chr-6.trna5-Leu-TAA      CACAG--GUUCGAAUCCUGCAUGGGUUA 75
chr-15.trna59-Leu-TAA    CGUGG--GUUCGAACCCCACAGCCAGCA 83
chr-11.trna21-Leu-TAA    CGUGG--GUUCGAACCCCACAGCCAGCA 83
chr-13.trna30-Leu-TAA    CGUGG--GUUCGAACCCCACAGCCAGCA 83
chr-12.trna38-Leu-TAA    CGUGG--GUUCGAACCCCACAGCCAGCA 83
chr-2.trna54-Leu-TAA     CGUGG--GUUCGAACCCCACAGCCUGCA 83
chr-10.trna45-Leu-TAA    CGUGG--GUUCGAACCCCACAGCCUGCA 83
chr-13.trna18-Leu-TAA    CGUGG--GUUCGAACCCCACAGCCAGCA 83
chr-13.trna74-Leu-TAA    CGUGG--GUUCGAACCCCACAGCCUGCA 83
chr-9.trna9-Leu-TAA      CGUGU--GUUCGAACCCCACAGCCUGCA 83
chr-2.trna8-Leu-CAA      CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-6.trna2-Leu-CAA      CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-8.trna34-Leu-CAA     CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-8.trna35-Leu-CAA     CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-18.trna44-Leu-CAA    CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-12.trna48-Leu-CAA    CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-14.trna4-Leu-CAA     CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-17.trna47-Leu-CAA    CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-5.trna19-Leu-CAA     CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-5.trna43-Leu-CAA     CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-8.trna62-Leu-CAA     CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-17.trna32-Leu-CAA    CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-14.trna16-Leu-CAA    CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-11.trna13-Leu-CAA    CGUGG--GUUCAAAUCCCACUUCUGACA 84
chr-2.trna26-Leu-TAA     -GUGG--GUUCAAACCCCGCUUUUGACA 83
chr-15.trna57-Leu-CAG    CAUGG--GUUCGAAUCCCAUUCUUGACA 81
chr-18.trna27-Leu-CAG    CAUGG--GUUCGAAUCCCAUUCUUGACA 81
chr-18.trna28-Leu-CAG    CAUGG--GUUCGAAUCCCAUUCUUGACA 81
chr-9.trna46-Leu-CAG     CAUGG--GUUCGAAUCCCAUUCUUGACA 81
chr-8.trna7-Leu-CAG      CAUGG--GUUCGAAUCCCAUUCUUGACA 81
chr-9.trna23-Leu-CAG     CAUGG--GUUCGAAUCCCAUUCUUGACA 81
chr-8.trna22-Leu-CAG     CAUGG--GUUCGAAUCCCAUUCUUGACA 81
chr-2.trna59-Leu-AAG     CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-2.trna60-Leu-AAG     CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-12.trna23-Leu-AAG    CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-12.trna9-Leu-AAG     CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-11.trna49-Leu-AAG    CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-11.trna37-Leu-AAG    CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-13.trna53-Leu-AAG    CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-4.trna20-Leu-AAG     CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-5.trna6-Leu-AAG      CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-5.trna36-Leu-AAG     CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-17.trna11-Leu-AAG    CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-19.trna5-Leu-AAG     CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-6.trna41-Leu-AAG     CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-18.trna60-Leu-AAG    CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-8.trna53-Leu-AAG     CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-16.trna27-Leu-AAG    CGUGG--GUUCAAAUCCCACUCUCAACA 81
chr-2.trna25-Leu-TAG     CGUGG--GUUCAAAUCCCACAGCUGUCA 80
chr-3.trna34-Leu-TAG     CGUGG--GUUCAAAUCCCACAGCUGUCA 80
chr-6.trna46-Leu-TAG     CGUGG--GUUCAAAUCCCACAGCUGUCA 80
chr-4.trna24-Leu-TAG     CGUGG--GUUCAAAUCCCACAGCUGUCA 80
chr-5.trna5-Leu-TAG      CGUGG--GUUCAAAUCCCACAGCUGUCA 80
chr-6.trna4-Leu-TAG      CGUGG--GUUCAAAUCCCACAGCUGUCA 80
chr-8.trna52-Leu-TAG     CGUGG--GUUCAAAUCCCACAGCUGUCA 80
chr-10.trna28-Leu-TAG    CGUGG--GUUCAAAUCCCACAGCUGUCA 80
chr-10.trna43-Leu-TAG    CGUGG--GUUCAAAUCCCACAGCUGUCA 80
chr-9.trna29-Leu-CAG     CAUGG--AUUCGAAUACCAUUGUUGACA 81
chr-1.trna21-Leu-CAA     UGGAG--GUUCGAGUCCUCUUCAAGGCA 81
chr-18.trna37-Leu-CAA    UGGAG--GUUCGAGUCCUCUUCAAGAUA 81
chr-5.trna21-Leu-TAG     GUUCGAAAUUCGGAUCACAUUUUUGACG 88
                         .........70........80.......
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