```
                         (((((((..((((........)))).(((((.............)))))).....(((((..
chr-1.trna109-Ala-TGC    GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACAGGGU- 54
chr-8.trna77-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGCACGGGGU- 54
chr-4.trna97-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGCACGGGGU- 54
chr-3.trna26-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGCACGGGGU- 54
chr-6.trna64-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGCACGGGGU- 54
chr-2.trna4-Ala-TGC      GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGCACGGGGU- 54
chr-2.trna108-Ala-TGC    GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACAGGGU- 54
chr-2.trna27-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACAGGGU- 54
chr-2.trna44-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACAGGGU- 54
chr-4.trna63-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACAGGGU- 54
chr-1.trna110-Ala-TGC    GGGGAUGUAGCUCAAAUGGUAGAGCGCCGC-----UUUGCAUGCGGGAGGUACAGGGU- 54
chr-4.trna87-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCCGC-----UUUGCAUGCGGGAGGUACAGGGU- 54
chr-4.trna10-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACAGGGU- 54
chr-2.trna48-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUUGC-----UUUGCAUGCGAGAGGUACAGGGU- 54
chr-8.trna131-Ala-CGC    GGGGGUGUAGCUCAUAUGGUAGAGCGCUCGC-----UUCGCAUGCGAGAGGCACGGGGU- 54
chr-8.trna67-Ala-CGC     GGGGGUGUAGCUCAUAUGGUAGAGCGCUCGC-----UUCGCAUGCGAGAGGCACGGGGU- 54
chr-3.trna1-Ala-CGC      GGGGGUGUAGCUCAUAUGGUAGAGCGCUCGC-----UUCGCAUGCGAGAGGCACGGGGU- 54
chr-3.trna3-Ala-CGC      GGGGGUGUAGCUCAUAUGGUAGAGCGCUCGC-----UUCGCAUGCGAGAGGCACGGGGU- 54
chr-3.trna52-Ala-CGC     GGGGUUGUAGCUCAUAUGGUAGAGCGCUCGC-----UUCGCAUGCGAGAGGCACGGGGU- 54
chr-7.trna65-Ala-CGC     GGGGACGUAGCUCAUAUGGUAGAGCGCUCGC-----UUCGCAUGCGAGAGGCACGGGGU- 54
chr-1.trna123-Ala-TGC    GGGGAUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-1.trna124-Ala-TGC    GGGGGUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-8.trna136-Ala-TGC    GGGGAUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-1.trna125-Ala-TGC    GGGGAUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-1.trna128-Ala-TGC    GGGGAUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-8.trna69-Ala-TGC     GGGGAUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-7.trna87-Ala-TGC     GGGGAUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-1.trna129-Ala-TGC    GGGGGUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-1.trna130-Ala-TGC    GGGGAUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-1.trna127-Ala-TGC    GGGGAUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCCAGAGGUACGGGGU- 54
chr-1.trna126-Ala-TGC    GAGGGUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUACGGGGU- 54
chr-1.trna91-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-8.trna32-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-8.trna64-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-6.trna54-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-2.trna15-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-2.trna68-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-5.trna112-Ala-AGC    GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-4.trna181-Ala-AGC    GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-4.trna121-Ala-AGC    GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-2.trna70-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-7.trna89-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-2.trna71-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-4.trna55-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-2.trna79-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-7.trna66-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-7.trna35-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-7.trna26-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-3.trna14-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-3.trna39-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-2.trna72-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGUGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-3.trna40-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUAUGGGGA- 54
chr-6.trna52-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-3.trna76-Ala-AGC     GGGGAUGUAGCUCAAAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUACGGGGA- 54
chr-3.trna41-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCGAGAGGUAUAGGGA- 54
chr-6.trna53-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGCAAGAGGUACGGGGA- 54
chr-6.trna57-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAUAGUGCUCGC-----UUAGCAUGUGAGAGGGACGGGGA- 54
chr-6.trna55-Ala-AGC     GGGGAUGUAGCUCAGAUGGUAGAGCGCUCGC-----UUAGCAUGUGAGAGGUACGGGGA- 54
chr-4.trna11-Ala-TGC     GGGGAUGUAGCUCAAAUGGUAGAGUGCUUGC-----UUUGCAUGCAAGAGGUUCAGGGU- 54
chr-6.trna56-Ala-AGC     GGAGAUGUGGAUCAGAUGGUAGAGUGCUCGC-----UUAGCAUGCGAGAGGUAUGCGGA- 54
chr-1.trna53-Ala-AGC     GGGGAUGUAGCUCAUAUGGUAGAGCGCUCGCAUCACUUAGCAUGCGAGAGGUACGGGC- 59
chr-1.trna131-Ala-TGC    ----GUGUAGCUCACAUGGUAGAGCGCUCGC-----UUUGCAUGCGAGAGGUAUGGGGUU 51
                         .........10........20........30........40........50.........
                         ...........)))))))))))).
chr-1.trna109-Ala-TGC    -----UUGAUCCCCUGCAUCUCCA 73
chr-8.trna77-Ala-TGC     -----UCGAUCCCCGCAUCUCCA 73
chr-4.trna97-Ala-TGC     -----UCGAUCCCCGCAUCUCCA 73
chr-3.trna26-Ala-TGC     -----UCGAUCCCCGCAUCUCCA 73
chr-6.trna64-Ala-TGC     -----UCGAUCCCCGCAUCUCCA 73
chr-2.trna4-Ala-TGC      -----UUGAUCCCCGCAUCUCCA 73
chr-2.trna108-Ala-TGC    -----UCGAUCCCCUGCAUCUCCA 73
chr-2.trna27-Ala-TGC     -----UCGAUCCCCUGCAUCUCCA 73
chr-2.trna44-Ala-TGC     -----UCGAUCCCCUGCAUCUCCA 73
chr-4.trna63-Ala-TGC     -----UCGAUCCCCUGCAUCUCCA 73
chr-1.trna110-Ala-TGC    -----UCGAUACCCUGCAUCUCCA 73
chr-4.trna87-Ala-TGC     -----UCGAUACCCUGCAUCUCCA 73
chr-4.trna10-Ala-TGC     -----UCGAUACCCUGCAUCUCCA 73
chr-2.trna48-Ala-TGC     -----UCGAUACCCUGCAUCUCCA 73
chr-8.trna131-Ala-CGC    -----UCGAUUCCCCGCACCUCCA 73
chr-8.trna67-Ala-CGC     -----UCGAUUCCCCGCACCUCCA 73
chr-3.trna1-Ala-CGC      -----UCGAUUCCCCGCACCUCCA 73
chr-3.trna3-Ala-CGC      -----UCGAUUCCCCGCACCUCCA 73
chr-3.trna52-Ala-CGC     -----UCGAUUCCCCGCAGCUCCA 73
chr-7.trna65-Ala-CGC     -----UCGAUUCCCCGCGUCUCCA 73
chr-1.trna123-Ala-TGC    -----UCGAUACCCCGCAUCUCCA 73
chr-1.trna124-Ala-TGC    -----UCGAUACCCCGCAUCUCCA 73
chr-8.trna136-Ala-TGC    -----UCGAUACCCCGCAUCUCCA 73
chr-1.trna125-Ala-TGC    -----UCGAUACCCCGCAUCUCCA 73
chr-1.trna128-Ala-TGC    -----UCGAUACCCCGCAUCUCCA 73
chr-8.trna69-Ala-TGC     -----UCGAUACCCCGCAUCUCCA 73
chr-7.trna87-Ala-TGC     -----UCGAUACCCCGCAUCUCCA 73
chr-1.trna129-Ala-TGC    -----UCGAUACCCUGCAUCUCCA 73
chr-1.trna130-Ala-TGC    -----UCAAUACCCUGCAUCUCCA 73
chr-1.trna127-Ala-TGC    -----UCGAUACCCUGCAUCUCCA 73
chr-1.trna126-Ala-TGC    -----UCGAUACCCCGCAUCUCCA 73
chr-1.trna91-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-8.trna32-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-8.trna64-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-6.trna54-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-2.trna15-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-2.trna68-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-5.trna112-Ala-AGC    -----UCGAUACCCCGCAUCUCCA 73
chr-4.trna181-Ala-AGC    -----UCGAUACCCCGCAUCUCCA 73
chr-4.trna121-Ala-AGC    -----UCGAUACCCCGCAUCUCCA 73
chr-2.trna70-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-7.trna89-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-2.trna71-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-4.trna55-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-2.trna79-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-7.trna66-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-7.trna35-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-7.trna26-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-3.trna14-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-3.trna39-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-2.trna72-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-3.trna40-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-6.trna52-Ala-AGC     -----UCGAUACCCCGCAACUCCA 73
chr-3.trna76-Ala-AGC     -----UCGAUACCAUGCAUCUCCA 73
chr-3.trna41-Ala-AGC     -----UUGAUACCCUGCAUCUCCA 73
chr-6.trna53-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 73
chr-6.trna57-Ala-AGC     -----UUGAUACCCCACAUCUCCA 73
chr-6.trna55-Ala-AGC     -----UUGAUACCCCGCAUCUCCA 73
chr-4.trna11-Ala-TGC     -----UUGAU-CCCCGCAUCUCCA 72
chr-6.trna56-Ala-AGC     -----UCGAUACCCUGUAUUUCCA 73
chr-1.trna53-Ala-AGC     -----UCGAUACCCCGCAUCUCCA 78
chr-1.trna131-Ala-TGC    CGAUAUCGAUACCUUGCAUCUCCA 75
                         .........70........80...
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