```
                         (((((((..(((...........)))(((((((....).)))))).(((....))))..(
chr-4.trna119-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGAUUUAAGAUCUUCUGCACAUAAGUGCGCA 59
chr-15.trna98-Leu-TAA    GUUGGUUUGCCCGAGA-GGUUAAGGGGGAAGAUUUAAGAUCUUCUGCACAUAAGUGUGCG 59
chr-2.trna153-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACACAAGUGCGCA 59
chr-13.trna183-Leu-TAA   GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACACAAGUGCGCA 59
chr-8.trna235-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACACAAGUGCGCA 59
chr-6.trna134-Leu-TAA    GUUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACACAAGUGCACA 59
chr-2.trna81-Leu-TAA     GUUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-6.trna198-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-6.trna247-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-6.trna250-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-8.trna155-Leu-TAA    GGUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-15.trna64-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-15.trna96-Leu-TAA    GCUAGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-1.trna64-Leu-TAA     GCUAGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCA 59
chr-4.trna177-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCA 59
chr-8.trna236-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCA 59
chr-8.trna213-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCA 59
chr-5.trna78-Leu-TAA     GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCA 59
chr-4.trna89-Leu-TAA     GCUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-5.trna7-Leu-TAA      GCUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-8.trna173-Leu-TAA    GCUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-8.trna174-Leu-TAA    GCUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-8.trna176-Leu-TAA    GCUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-9.trna170-Leu-TAA    GCUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-14.trna184-Leu-TAA   GCUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-11.trna120-Leu-TAA   GCUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-4.trna12-Leu-TAA     GGUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-13.trna128-Leu-TAA   GGUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-4.trna67-Leu-TAA     GGUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-12.trna80-Leu-TAA    GGUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-7.trna196-Leu-TAA    GGUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-3.trna156-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAAAAGUGCGCA 59
chr-6.trna135-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAAAAGUGCGCA 59
chr-8.trna175-Leu-TAA    GAUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-14.trna155-Leu-TAA   GGUGGUUUGCCCGAGU-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACUUAAGUGCGCG 59
chr-6.trna158-Leu-TAA    GUUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAAAAGUGCGCA 59
chr-2.trna206-Leu-TAA    GCUGGUUUGUCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCAUAUAAGUGCGCA 59
chr-6.trna199-Leu-TAA    GCUGGUUUGCCCGAGA-UGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-9.trna41-Leu-TAA     GCUGGUUUGCCAGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCA 59
chr-2.trna200-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUUUGCACACAAGUGCGCA 59
chr-12.trna198-Leu-TAA   GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUUGCACAAAAGUGCGCA 59
chr-8.trna156-Leu-TAA    GGUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 59
chr-4.trna178-Leu-TAA    GCUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACACAAGGGCGCA 59
chr-6.trna137-Leu-TAA    GCUAGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAUAAGUGCGCA 59
chr-7.trna70-Leu-TAA     GCUGGUUUGCCCGAGA-GGUUAAUGGGGAAGACUUAAGAUUUUCUGCACAUAAGUGCGCA 59
chr-4.trna238-Leu-TAA    GUUGGUUUGCCCGAGA-GGUUAAGGG-GAAGACUUAAGAUCUUCUGCACACAAGUGCGCA 58
chr-6.trna69-Leu-TAA     GUUGGUUUGCCCGAGA-GGUUAAGGG-GAAGACUUAAGAUCUUCUGCACAUAAGUGCGCG 58
chr-8.trna180-Leu-TAA    GUUGGUUUGCCCGAGA-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACACAAGUGCGCA 59
chr-6.trna200-Leu-TAA    GUUGGUUUGCCCGAGA-GGUUGAGGGGGAAAACUUAAGAUCUUUGCACAUAAGUGCGCG 59
chr-5.trna31-Leu-TAA     GCUAGUUUGCCUGAGG-GGUUAAGGGGGAAGACUUAAGAUCUUCUGCACAGAAGUGCGCA 59
chr-15.trna63-Leu-TAA    ACUGGUUUGCUUGAGA-GGUUAAGGG-GAAGACUUAAGAUCUUUGCACAUAAGUGCGCG 58
chr-1.trna72-Leu-TAA     GACAGUUUGACCGAGUGGUCUAAGGCGCCAGAUUUAAGCUUGG--UCCCAAAGGGCGUG 58
                         .........10........20........30........40........50.........
```

```
                         ((((........))))..)))))))).
chr-4.trna119-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-15.trna98-Leu-TAA    UGGG-UUCGAACUCCAC--AGCCAGCA 83
chr-2.trna153-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-13.trna183-Leu-TAA   UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-8.trna235-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-6.trna134-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-2.trna81-Leu-TAA     UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-6.trna198-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-6.trna247-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-6.trna250-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-8.trna155-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCACCA 83
chr-15.trna64-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-15.trna96-Leu-TAA    UGGG-UUCGAACCCCAC--AGCUAGCA 83
chr-1.trna64-Leu-TAA     UGGG-UUCGAACCCCAU--AGCUAGCA 83
chr-4.trna177-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-8.trna236-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-8.trna213-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-5.trna78-Leu-TAA     UGGG-CUCGAACCCCAU--AGCCAGCA 83
chr-4.trna89-Leu-TAA     UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-5.trna7-Leu-TAA      UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-8.trna173-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-8.trna174-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-8.trna176-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-9.trna170-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-14.trna184-Leu-TAA   UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-11.trna120-Leu-TAA   UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-4.trna12-Leu-TAA     UGGG-UUCGAACCCCAC--AGCCACCA 83
chr-13.trna128-Leu-TAA   UGGG-UUCGAACCCCAC--AGCCACCA 83
chr-4.trna67-Leu-TAA     UGGG-UUCGAACCCCAC--AGCCACCA 83
chr-12.trna80-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCACCA 83
chr-7.trna196-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCACCA 83
chr-3.trna156-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-6.trna135-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-8.trna175-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-14.trna155-Leu-TAA   UGGG-UUCGAACCCCAC--AGCCACCA 83
chr-6.trna158-Leu-TAA    UGGG-UUCGAACCCCAU--UGCCAGCA 83
chr-2.trna206-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-6.trna199-Leu-TAA    UGGG-UUCGAACCCCAC--AGCCAGCA 83
chr-9.trna41-Leu-TAA     UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-2.trna200-Leu-TAA    UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-12.trna198-Leu-TAA   UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-8.trna156-Leu-TAA    UGGGUUUCGAACCCCAC--AGCCACCA 84
chr-4.trna178-Leu-TAA    UGGG-UUCGAACCCCAU--AGCUAGCA 83
chr-6.trna137-Leu-TAA    UGGG-UUCGAACCCAAU--AGCCAGCA 83
chr-7.trna70-Leu-TAA     UGGG-UUCAAACCCCAU--AGCCAGCA 83
chr-4.trna238-Leu-TAA    UGGG-UUCAAACCCCAU--AGCCAGCA 82
chr-6.trna69-Leu-TAA     UGGG-UUCAAACCCCAC--AGCCAGCA 82
chr-8.trna180-Leu-TAA    UGGG-UUCGAA-ACCAU--AGCCAGCA 82
chr-6.trna200-Leu-TAA    UGGG-UUUGAACCCCAC--AGCCAGCG 83
chr-5.trna31-Leu-TAA     UGGG-UUCGAACCCCAU--AGCCAGCA 83
chr-15.trna63-Leu-TAA    UGGG-UUCAAACCCCAC--AGCCAGCA 82
chr-1.trna72-Leu-TAA     GGUU-CAAAGAAAUUCCACAGUUGUCA 84
                         .........70........80......
```