```
                                 (((((((..((((........)))).(((((.......)))))).....(((((.......
chr-1.trna56-Gln-TTG     UGGGGUGUGGCCAAGUGGU-AAGGCAACAGGUUUUGGUCCCGUUACUCGAAGGUUCGAAU 59
chr-6.trna38-Gln-TTG     UGGGGCGUGAUCAAGUGGU-AAGGCAGCGGGUUUUGGUCCCGUUACUCGGAGGUUCGAAU 59
chr-5.trna189-Gln-TTG    UGGGGCGUGGCCAAGUGGU-AAGGCAGCGGGUUUUGGUCACGUUACUCGGAGGUUCGAAU 59
chr-1.trna445-Gln-TTG    UGGGGCGUGGCCAAGUGGU-AAGGCAGCGGGUUUUGGUACCGUUACUCGGAGGUUCGAAU 59
chr-5.trna200-Gln-TTG    UGGGGCGUGGCCAAGUGGU-AAGGCAGCUGGUUUUGGUCCCGUUACUCGGAGGUUGGAAU 59
chr-5.trna215-Gln-CTG    UGGGGUGUGGCCAAGUGGU-AAGGCAGCAGGUUCUGGUCCCGUUACUCGGAGGUUCGAAU 59
chr-5.trna355-Gln-TTG    UGGGGCGUGGCCAAGUGAU-AAGGUAGUGGGUUUUGGUCCCGUUACUCGUAGGUUCGAAU 59
chr-6.trna273-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUACCGGCAUGCAAAGGUUCGAAU 59
chr-1.trna424-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUACCGGCAUGCAAAGGUUCGAAU 59
chr-6.trna170-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUACCGGCAUGCAAAGGUUCGAAU 59
chr-3.trna69-Gln-TTG     UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUACCGGCAUGCAAAGGUUCGAAU 59
chr-2.trna100-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUACCGGCAUGCAAAGGUUCGAAU 59
chr-1.trna22-Gln-TTG     UGGAAUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUACCGUCAUGCAAAGGUUCGAAU 59
chr-1.trna152-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUAUCGGCAUGCAAAGGUUCGAAU 59
chr-6.trna223-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUAUCGGCAUGCAGAGGUUCGAAU 59
chr-2.trna403-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUAUCGGCAUGCAAAGGUUCGAAU 59
chr-4.trna127-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUAUCGGCAUGCAAAGGUUCGAAU 59
chr-4.trna87-Gln-TTG     UGGAGUAUAGCCAAGUGGU-AAGGCAUCGAUUUUUGGUAUCGGCAUGCAAAGGUUCGAAU 59
chr-1.trna427-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGGUUUUUGGUAUCGGCAUGCAAAGGUUCGAAU 59
chr-3.trna242-Gln-TTG    UGGAGUAUAGCCAAGUGGU-AAGGCAUCGUUUUUUGGUACCGGCAUGCAAAGGUUCGAAU 59
chr-2.trna258-Gln-TTG    UGGAGUAUAGCCAAAUGGU-AAGGCAUCGGUUUUUGGUAUCGGCAUGCAAAGGUUCGAAU 59
chr-6.trna305-Gln-TTG    ---GGCGUGGCCAAGUGGU-AAGGCAGCGGGUUUUGGUCCCGUUACUCGGAGGUUCGAAU 56
chr-4.trna7-Gln-CTG      GGUCCUAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-6.trna243-Gln-CTG    GGUCCUAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-7.trna161-Gln-CTG    GGUCCUAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-7.trna160-Gln-CTG    GGUCCUAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-7.trna159-Gln-CTG    GGUCCUAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-1.trna275-Gln-CTG    GGUCCCAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-1.trna276-Gln-CTG    GGUCCCAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-1.trna297-Gln-CTG    GGUCCCAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-7.trna151-Gln-CTG    GGUCCCAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-2.trna469-Gln-CTG    GGUCCCAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-3.trna146-Gln-CTG    GGUCCCAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-5.trna182-Gln-CTG    GGUCCCAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-3.trna391-Gln-CTG    GGUUCCAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-5.trna504-Gln-CTG    GGUCCCAUGGUCUAGUGGUCAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-3.trna80-Gln-CTG     UGUUCCAUGGUCUAGUGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-3.trna79-Gln-CTG     GGUUCUAUGGUCUAGCGGUUAGGACAUUGGACUCUGAAUCCAGUA-ACCCGAGUUCAAGU 59
chr-3.trna439-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-2.trna320-Gln-TTG    GGUUCUAUGGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna183-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna186-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCAAAU 59
chr-3.trna188-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCAAAU 59
chr-3.trna433-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCAAAU 59
chr-3.trna438-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCAAAU 59
chr-3.trna435-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCAAAU 59
chr-3.trna437-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna436-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna431-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna430-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna429-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna434-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna180-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna182-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-5.trna236-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna187-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna184-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna185-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCGAAU 59
chr-3.trna432-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCG-ACCUGGGUUCAAAU 59
chr-3.trna181-Gln-TTG    GGUUUCGUAGUAUAGUGGUUAGCACUCCAGACUUUGAAUCUAGCG-ACCUGGGUUUGAAU 59
chr-3.trna189-Gln-TTG    GGUUUCGUAGUGUAGUGGUUAGCACUCCAGACUUUGAAUCUGGCA-ACCUGGGUUCAAAU 59
chr-1.trna382-Gln-CTG    -UUCAUU--GCUCAGUUGGUAAAGCACAAAGCUCUGAACCUUGUGGACGUGGGUUCAAGC 57
                         .........10........20........30........40........50.........

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chr-1.trna56-Gln-TTG     CCUUCCGUCCCAG 72
chr-6.trna38-Gln-TTG     CCUUCCGUCCCAG 72
chr-5.trna189-Gln-TTG    CCUUCCGUCCCAG 72
chr-1.trna445-Gln-TTG    CCUUCCAUCCCAG 72
chr-5.trna200-Gln-TTG    CCUUCCGUCCCAG 72
chr-5.trna215-Gln-CTG    CAUUCCAUCCCAG 72
chr-5.trna355-Gln-TTG    CCUUUCGUCCCAG 72
chr-6.trna273-Gln-TTG    CCUUUUACUCCAG 72
chr-1.trna424-Gln-TTG    CCUUUUACUCCAG 72
chr-6.trna170-Gln-TTG    CCUUUUACUCCAG 72
chr-3.trna69-Gln-TTG     CCUUUUACUCCAG 72
chr-2.trna100-Gln-TTG    CCUUUUACUCUAG 72
chr-1.trna22-Gln-TTG     CCUUUUACUCCAG 72
chr-1.trna152-Gln-TTG    CCUUUUACUCCAG 72
chr-6.trna223-Gln-TTG    CCUUUUACUCCAG 72
chr-2.trna403-Gln-TTG    CCUUUUACUCCAG 72
chr-4.trna127-Gln-TTG    CCUUUUACUCCAG 72
chr-4.trna87-Gln-TTG     CCUUUUACUCCAG 72
chr-1.trna427-Gln-TTG    CCUUUUACUCCUG 72
chr-3.trna242-Gln-TTG    CCUUUUACUCCAG 72
chr-2.trna258-Gln-TTG    CCUU-UACUCCAG 71
chr-6.trna305-Gln-TTG    CCUUCCGUGAACU 69
chr-4.trna7-Gln-CTG      CUCGGUAGGACCU 72
chr-6.trna243-Gln-CTG    CUCGGUAGGACCU 72
chr-7.trna161-Gln-CTG    CUCGGUAGGACCU 72
chr-7.trna160-Gln-CTG    CUCGGUAGGACCU 72
chr-7.trna159-Gln-CTG    CUCGGUAGGACCU 72
chr-1.trna275-Gln-CTG    CUCGGUGGGACCU 72
chr-1.trna276-Gln-CTG    CUCGGUGGGACCU 72
chr-1.trna297-Gln-CTG    CUCGGUGGGACCU 72
chr-7.trna151-Gln-CTG    CUCGGUGGGACCU 72
chr-2.trna469-Gln-CTG    CUCGGUGGGACCU 72
chr-3.trna146-Gln-CTG    CUCGGUGGGACCU 72
chr-5.trna182-Gln-CTG    CUCGGUGGGACCU 72
chr-3.trna391-Gln-CTG    CUCGGUGGGACCU 72
chr-5.trna504-Gln-CTG    CUCGGUGGGACCU 72
chr-3.trna80-Gln-CTG     CUCGGUGGAACCU 72
chr-3.trna79-Gln-CTG     CUCGGUAGAACCU 72
chr-3.trna439-Gln-TTG    UCCGGCGAGACCU 72
chr-2.trna320-Gln-TTG    CCCGGUAGGACCU 72
chr-3.trna183-Gln-TTG    CCCUGCGAGACCU 72
chr-3.trna186-Gln-TTG    CCCGGCGAGACCU 72
chr-3.trna188-Gln-TTG    CCCGGCGAGACCU 72
chr-3.trna433-Gln-TTG    CCCGGCGAGACCU 72
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chr-3.trna432-Gln-TTG    CCGGGCGAGACCU 72
chr-3.trna181-Gln-TTG    CCCGGCGAGACCU 72
chr-3.trna189-Gln-TTG    CCCGGCGAGACCU 72
chr-1.trna382-Gln-CTG    CCUACGAUGGAAG 70
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