```
                                                  (((((((..((((((.....))).))).(((((.......))))).).....(((((.....
chr-1.trna9-Val-GAC       AGGGAUAUAACUCAGC--GGUAGAGUGUCAUCUUGACGUGCUA-UAAGUUAUCAGUUCGA 57
chr-5.trna4-Val-GAC       AGAGAUAUAACUCAGC--GGUAGAGUGUCAUCUUGACGUGGUG-GAAGUUAUUAGUUCGA 57
chr-11.trna65-Val-GAC     AGGGAUAUAACUCAGA--GGUAGAGUGUCACCUUGACGUGGUG-GAAGUCAUCAGUUCGA 57
chr-11.trna18-Val-GAC     AGGGAUAUAACUCAGC--GGUAGAGUGUCACCUUGACGUGGUG-GAAGUCAUCAGUUCGA 57
chr-11.trna46-Val-GAC     AGGGAUAUAACUCAGC--GGUAGAGUGUCACCUUGACGUGGUG-GAAGAUAUCAGUUCGA 57
chr-2.trna93-Val-GAC      AGGGAUAUAACUCAGC--GGUAGAGUGUUACCUUGACGUGGUG-GAAGCCAUCAGUUCGA 57
chr-6.trna22-Val-GAC      AGGGAUAUAACUCAGU--GGUAGAGUAUCACCUUGACGUGGUG-GAAGUCAUCAGUUUGA 57
chr-1.trna55-Val-TAC      GUUGCUGUGGUGUAGU-GGUUAUCACGUCAGUCUUACACACUG-AAGGUCCCCAGUUCGA 58
chr-1.trna138-Val-TAC     GUUGCUGUGGUGUAGU-GGUUAUCACGUCAGUCUUACACACUG-AAGGUCCCCAGUUCGA 58
chr-5.trna75-Val-TAC      GUUGCUGUGGUGUAGU-GGUUAUCACGUCAGUCUUACACACUG-AAGGUCCCCAGUUCGA 58
chr-5.trna76-Val-TAC      GUUGCUGUGGUGUAGU-GGUUAUCACGUCAGUCUUACACACUG-AAGGUCCCCAGUUCGA 58
chr-5.trna68-Val-TAC      GUUGGUGUGGUGUAGU-GGUUAUCUCGUCAGUCUUACACACUG-AAGGUCCCCAGUUCGA 58
chr-5.trna74-Val-TAC      GUUGCUGUGGUGUAGU-GGUUAUCACGUCAGUCUUACACACUG-AAGGUCCCCUGUUCGA 58
chr-12.trna13-Val-TAC     GUUGCUGUGGUGUAGU-GGUUAUCACGUUAGUCUUACACACUA-AAGGUCCCCAGUUCGA 58
chr-9.trna21-Val-TAC      GUUGCUGUGGUGUAGU-GGUUAUCACGUUAGUCUUACACACUA-AAGGUCCCCAGUUCGA 58
chr-10.trna135-Val-TAC    GUUGCUGUGGUGUAGU-GGUUAUCACGUUAGUCUUACACACUA-AAGGUCCCCAGUUCGA 58
chr-7.trna48-Val-TAC      GUUGCUGUGGUGUAGU-GGUUAUCACGUUAGUCUUACACACUA-AAGGUCCCCAGUUCGA 58
chr-10.trna127-Val-TAC    GUUGCUGUGGUGUAGU-GGUUAUCACGUUAGUCUUACACACUA-AGGGUCCCCAGUUCGA 58
chr-1.trna7-Val-AAC       GGUGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-8.trna23-Val-AAC      GGUGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-1.trna40-Val-AAC      GGUGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-1.trna58-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-1.trna101-Val-AAC     GGUGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-1.trna103-Val-AAC     GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-5.trna12-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-5.trna13-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-6.trna8-Val-AAC       GGUGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-6.trna55-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-6.trna59-Val-AAC      GGUGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-6.trna68-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-6.trna69-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-10.trna69-Val-AAC     GGUGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-6.trna70-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-6.trna71-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-8.trna2-Val-AAC       GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-8.trna42-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-9.trna31-Val-AAC      GGUGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-8.trna69-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-9.trna15-Val-AAC      GGUGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-8.trna71-Val-AAC      GGUUUCGUAGUGUAGUUGGUUAUCACGUCAGUCUAACACACUG-AAGGUCUCCGGUUCGA 59
chr-6.trna67-Val-AAC      GGUUUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACAC-G-AAGGUCUCCAGUUCGA 58
chr-9.trna30-Val-CAC      GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-8.trna32-Val-CAC      GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-10.trna9-Val-CAC      GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-10.trna63-Val-CAC     GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-10.trna68-Val-CAC     GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-1.trna104-Val-CAC     GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-4.trna32-Val-CAC      GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-4.trna54-Val-CAC      GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-5.trna39-Val-CAC      GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-5.trna60-Val-CAC      GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-9.trna45-Val-CAC      GUCUGGGUGGUGUAGUCGGUUAUCACGCUAGUCUCACACACUA-GAGGUCCCGGUUCGA 59
chr-10.trna93-Val-CAC     GCAUCCAUAGCUGAAU-GGUUAAAGGGCCAACUCACAAUUGGAAAAUUCGUAGGUUCAA 59
chr-10.trna95-Val-CAC     GCAUCCAUAGCUGAAU-GGUUAAAGGGCCAACUCACAAUUGGAAAAUUCGUAGGUUCAA 59
                          .........10........20........30........40........50.........

                          ..)))))))))))).
chr-1.trna9-Val-GAC       GCCUGAUUAUCCCUA 72
chr-5.trna4-Val-GAC       GCCUGAUUAUCCGUA 72
chr-11.trna65-Val-GAC     GCCUGAUUAUCCCUA 72
chr-11.trna18-Val-GAC     GCCUGAUUAUCCCUC 72
chr-11.trna46-Val-GAC     GCCUGAUUAUCCCUA 72
chr-2.trna93-Val-GAC      GCCUGAUAAUCCCUA 72
chr-6.trna22-Val-GAC      GCCUGAUUAUCCCAA 72
chr-1.trna55-Val-TAC      UCCUGGGCAGCAACA 73
chr-1.trna138-Val-TAC     UCCUGGGCAGCAACA 73
chr-5.trna75-Val-TAC      UCCUGGGCAUCAACA 73
chr-5.trna76-Val-TAC      UCCUGGGCAUCAACA 73
chr-5.trna68-Val-TAC      UCCUGGGCAUCAACA 73
chr-5.trna74-Val-TAC      UCCUGGGCAUCAACA 73
chr-12.trna13-Val-TAC     UCCUGGGCAGCAACA 73
chr-9.trna21-Val-TAC      UCCUGGGCAGCAACA 73
chr-10.trna135-Val-TAC    UCCUGGGCAGCAACA 73
chr-7.trna48-Val-TAC      UCCUGGGCAGCAACA 73
chr-10.trna127-Val-TAC    GCCUGGGCAGCAACA 73
chr-1.trna7-Val-AAC       ACCCGGGCGACGCCA 74
chr-8.trna23-Val-AAC      ACCCGGGCGACGCCA 74
chr-1.trna40-Val-AAC      AUCCGGGCGACGCCA 74
chr-1.trna58-Val-AAC      AUCCGGGCGAAGCCA 74
chr-1.trna101-Val-AAC     AUCCGGGCGACGCCA 74
chr-1.trna103-Val-AAC     GUCCGGGCGAAGCCA 74
chr-5.trna12-Val-AAC      GUCCGGGCGAAGCCA 74
chr-5.trna13-Val-AAC      GUCCGGGCGAAGCCA 74
chr-6.trna8-Val-AAC       GUCCGGGCGACGCCA 74
chr-6.trna55-Val-AAC      GUCCGGGCGAAGCCA 74
chr-6.trna59-Val-AAC      GUCCGGGCGACGCCA 74
chr-6.trna68-Val-AAC      GUCCGGGCGAAGCCA 74
chr-6.trna69-Val-AAC      GUCCGGGCGAAGCCA 74
chr-10.trna69-Val-AAC     GUCCGGGCGACGCCA 74
chr-6.trna70-Val-AAC      GUCCGGGCGAAGCCA 74
chr-6.trna71-Val-AAC      GUCCGGGCGAAGCCA 74
chr-8.trna2-Val-AAC       GUCCGGGCGAAGCCA 74
chr-8.trna42-Val-AAC      GUCCGGGCGAAGCCA 74
chr-9.trna31-Val-AAC      GUCCGGGCGACGCCA 74
chr-8.trna69-Val-AAC      GUCCGGGCGAAGCCA 74
chr-9.trna15-Val-AAC      GUCCGGGCGACGCCA 74
chr-8.trna71-Val-AAC      GUCCGGGCAAAGCCA 74
chr-6.trna67-Val-AAC      GUCUGGGCGAAGCCA 73
chr-9.trna30-Val-CAC      ACCCGGGCUCAGACA 74
chr-8.trna32-Val-CAC      ACCCGGGCUCAGACA 74
chr-10.trna9-Val-CAC      ACCCGGGCUCAGACA 74
chr-10.trna63-Val-CAC     ACCCGGGCUCAGACA 74
chr-10.trna68-Val-CAC     ACCCGGGCUCAGACA 74
chr-1.trna104-Val-CAC     ACCCGGGCUCAGACA 74
chr-4.trna32-Val-CAC      ACCCGGGCUCAGACA 74
chr-4.trna54-Val-CAC      ACCCGGGCUCAGACA 74
chr-5.trna39-Val-CAC      ACCCGGGCUCAGACA 74
chr-5.trna60-Val-CAC      ACCCGGGCUCAGACA 74
chr-9.trna45-Val-CAC      ACCCGGGCUCAGACA 74
chr-10.trna93-Val-CAC     UUCCUACUAGAUGCA 74
chr-10.trna95-Val-CAC     UUCCUACUAGAUGCA 74
                          .........70....
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