```
                                ((....((((((.((((((....))).))).((((.........))))))).....((((..
chr-A09.trna69-Val-GAC    AG----GGGUAUAACUCAGC--GGUAGAGUGUCACCUUGACGUAGUGGAAGUCAUCAGUU 54
chr-A01.trna76-Val-GAC    AG----GGGUAUAACUCAGC--GGUAGAGUGUCUCCUUGACGUGGUGGAAGUCAUCAGUU 54
chr-A07.trna108-Val-GAC   AG----GGGUAUAACUCAGC--GGUAGAGUGUCACCUUGACGUGGUGGAAGUCAUCAGUU 54
chr-B08.trna114-Val-GAC   AG----GGGUAUAACUCAGC--GGUAGAGUGUCACCUUGACGUGGUGGAAGUCAUCAGUU 54
chr-B10.trna202-Val-GAC   AG----GGGUAUAACUCAGC--GGUAGAGUGUUACCUUGACGUGGUGGAAGUCAUCAGUU 54
chr-A03.trna61-Val-GAC    AG----GGGUAUAACUCAGC--GGUAGAGUGUCACCUUGACGUGGUGGAAGUCAUAAGUU 54
chr-A08.trna78-Val-GAC    AG----GGGUAUAACUCAGC--GGUAGAGUGUCACCUUGACGGGGUGGAAGUCAUCAGUU 54
chr-A09.trna82-Val-GAC    AA----GGGUAUAACUCAGC--GGUAGAGUGUCACCUUGACGUGGUGGAAGUCAUCAGUU 54
chr-A07.trna192-Val-GAC   AU----GGGUAUAACUCAGC--GGUAGAGUGUCACUUUGACGUGGUGGAAGUCAUCAGUU 54
chr-B04.trna52-Val-GAC    AGAGAAGUGUAUAACUCAGC--GGUAGAGUGUCACUUUGACAUGGUGGAAGUCAUCAGUU 58
chr-B01.trna133-Val-GAC   GA-------UAUAACUCAGC--GGUAGAGUGUCACGUUGACGUGGUGGAAGUCAUUAGUU 51
chr-A04.trna72-Val-AAC    GG----UGUUGUGAUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUUCGGUU 56
chr-A02.trna18-Val-AAC    GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B05.trna135-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B05.trna136-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCAUGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A01.trna109-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A02.trna5-Val-AAC     GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A02.trna112-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B10.trna136-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B10.trna135-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A04.trna7-Val-AAC     GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A04.trna8-Val-AAC     GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A04.trna9-Val-AAC     GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A05.trna35-Val-AAC    GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A06.trna68-Val-AAC    GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B10.trna252-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A08.trna47-Val-AAC    GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A09.trna6-Val-AAC     GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A10.trna30-Val-AAC    GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B01.trna103-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B02.trna180-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B03.trna15-Val-AAC    GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B05.trna118-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-B10.trna6-Val-AAC     GG----UGUUGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGUCUCCGGUU 56
chr-A03.trna14-Val-AAC    GG----UGUCGUGGUGUAGUUGGUUAUCAUGUCAGUCUAACACACUGAAGGUCUCUGGUU 56
chr-B06.trna271-Val-AAC   GG----UGUCGUGGUGUAGUUGGUUAUCACGUCAGUCUAACACACUGAAGGUCUCCGGUU 56
chr-A03.trna153-Val-CAC   GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCUGGUU 56
chr-A07.trna9-Val-CAC     GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCUUGGUU 56
chr-A08.trna69-Val-CAC    GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-B10.trna13-Val-CAC    GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-A04.trna5-Val-CAC     GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-A04.trna87-Val-CAC    GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-B08.trna101-Val-CAC   GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-B02.trna185-Val-CAC   GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-B07.trna29-Val-CAC    GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-A08.trna70-Val-CAC    GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-B03.trna254-Val-CAC   GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-A02.trna58-Val-CAC    GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-A10.trna40-Val-TAC    GU----CUGGGUGGUGUAGUUGGUUAUCAUGCUAGUCUUACACACUAGAGGUCCCCGGUU 56
chr-A09.trna5-Val-CAC     GU----CUGGGUGGUGUAGUUGGUCAUCACGCUAGUCUCACACACUAGAGGUCCCCGGUU 56
chr-B07.trna20-Val-CAC    GU----CUGGGUGGUGUAGUUGGUUAUCACGCUAGUCUCACACACUAGAGAACCCCGGUU 56
chr-B03.trna240-Val-TAC   GU----UGCUGUGGUGUAG-UGGUUAUCACGUUAGUCUUACACACUAAAGGUCCCCAGUU 55
chr-A03.trna138-Val-TAC   GU----UGCUGUGGUGUAG-UGGUUAUCACGUUAGUCUUACACACUAAAGGUCCCCAGUU 55
chr-B08.trna115-Val-TAC   GU----UGCUGUGGUGUAG-UGGUUAUCACGUUAGUCUUACACACUAAAGGUCCCCAGUU 55
chr-A08.trna34-Val-TAC    GU----UGCUGUGGUGUAG-UGGUUAUCACGUUAGUCUUACACACUAAAGGUCCCCAGUU 55
chr-B03.trna157-Val-TAC   GU----UGCUGUGGUGUAG-UGGUUAUCACGUUAGUCUUACACACUAAAGGUCCCAGUU 55
chr-B03.trna131-Val-TAC   GU----UGCUGUGGUGUAG-UGGUUAUCACGUCAGUCUUACACACUGAAGGUCCCAGUU 55
chr-A03.trna82-Val-TAC    GU----UGCUGUGGUGUAG-UGGUUAUCACGUCAGUCUUACACACUGAAGGUCCCAGUU 55
chr-B03.trna130-Val-TAC   GU----UGCUGUGGUGUAG-UGGUUAUCACGUCAGUCUUACACACUGAAGGUCCCAGUU 55
chr-A08.trna29-Val-TAC    GU----UGCUGUGGUGUAG-UGGUUAUCACGUCAGUCUUACACACUGAAGGUCCCAGUU 55
chr-B08.trna111-Val-TAC   GU----UGCUGUGGUGUAG-UGGUUAUCACGUCAGUCUUACACACUAAAGGUCCCAGUU 55
chr-A10.trna32-Val-TAC    GU----UGCUGUGGUGUAG-UGGUUAUCACGUCAGUCUUACACACUGAAGGUCCCAGUU 55
chr-B10.trna8-Val-TAC     GU----UGCUGUGGUGUAG-UGGUUAUCACGUCAGUCUUACACACUGAAGGUCUCCAGUU 55
chr-A03.trna99-Val-TAC    GU----UGCUGUGGUGUAG-UGGUUAUCACGUUAGUCUUACACACUAAAGGUCCCAGUU 55
chr-B01.trna72-Val-AAC    GG----UGUCGUGGUGUAGUUCGUUAUCACGUUAGUCUAACACACUGAAGGUCUCCGGCU 56
                          .........10........20........30........40........50.........
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                          .....))))..)))))))).
chr-A09.trna69-Val-GAC    CGAGCCUGA--UUAUCCCUA 72
chr-A01.trna76-Val-GAC    CGAGCCUGA--UUAUCCCUA 72
chr-A07.trna108-Val-GAC   CGAGCCUGA--UUAUCCCUA 72
chr-B08.trna114-Val-GAC   CGAGCCUGA--AUAUCCCUA 72
chr-B10.trna202-Val-GAC   CGAGCCUGA--UUAUCCCUA 72
chr-A03.trna61-Val-GAC    CGAGCCUAA--UUAUCCCUA 72
chr-A08.trna78-Val-GAC    CGAGCCUGA--UUAUCCCUA 72
chr-A09.trna82-Val-GAC    CGAGCCUGAU-UUACCCUAA 73
chr-A07.trna192-Val-GAC   CGAGCCUGA--UUAUCCCUA 72
chr-B04.trna52-Val-GAC    CGAGCCUGA--UUAUCCCUA 76
chr-B01.trna133-Val-GAC   CGAGUCUGAUGCCAUAAUCG 71
chr-A04.trna72-Val-AAC    CGAAUCCGG--GCAACGCCA 74
chr-A02.trna18-Val-AAC    CAAGUCCGG--GCGACGCCA 74
chr-B05.trna135-Val-AAC   CAAGUCCGG--GCGACGCCA 74
chr-B05.trna136-Val-AAC   CAAGUCCGG--GCGAUGCCA 74
chr-A01.trna109-Val-AAC   UGAGUCCGG--GCGACGCCA 74
chr-A02.trna5-Val-AAC     CGAGUCCGG--GCGACGCCA 74
chr-A02.trna112-Val-AAC   CGAGUCCGG--GCGACGCCA 74
chr-B10.trna136-Val-AAC   CGAGUCCGG--GCGACGCCA 74
chr-B10.trna135-Val-AAC   CGAGUCCGG--GCGACGCCA 74
chr-A04.trna7-Val-AAC     CGAGUCCGG--GCGACGCCA 74
chr-A04.trna8-Val-AAC     CGAGUCCGG--GCGACGCCA 74
chr-A04.trna9-Val-AAC     CGAGUCCGG--GCGACGCCA 74
chr-A05.trna35-Val-AAC    CGAGUCCGG--GCGACGCCA 74
chr-A06.trna68-Val-AAC    CGAGUCCGG--GCGACGCCA 74
chr-B10.trna252-Val-AAC   CGAGUCCGG--GCGACGCCA 74
chr-A08.trna47-Val-AAC    CGAGUCCGG--GCGACGCCA 74
chr-A09.trna6-Val-AAC     CGAGUCCGG--GCGACGCCA 74
chr-A10.trna30-Val-AAC    CGAGUCCGG--GCGACGCCA 74
chr-B01.trna103-Val-AAC   CGAGUCCGG--GCGACGCCA 74
chr-B02.trna180-Val-AAC   CGAGUCCGG--GCGACGCCA 74
chr-B03.trna15-Val-AAC    CGAGUCCGG--GCGACGCCA 74
chr-B05.trna118-Val-AAC   CGAGUCCGG--GCGACGCCA 74
chr-B10.trna6-Val-AAC     CGAGUCCGG--GCGACGCCA 74
chr-A03.trna14-Val-AAC    CGAGUCCGG--GCGACGCCA 74
chr-B06.trna271-Val-AAC   CGAGUCCGG--GCGACGUCA 74
chr-A03.trna153-Val-CAC   CGAACCCGG--GCUCAGACA 74
chr-A07.trna9-Val-CAC     CGAACCCGG--GCUCAGACA 74
chr-A08.trna69-Val-CAC    CGAACCUGG--GCUCAGACA 74
chr-B10.trna13-Val-CAC    CGAACCCGG--GCUCAGACA 74
chr-A04.trna5-Val-CAC     CGAACCCGG--GCUCAGACA 74
chr-A04.trna87-Val-CAC    CGAACCCGG--GCUCAGACA 74
chr-B08.trna101-Val-CAC   CGAACCCGG--GCUCAGACA 74
chr-B02.trna185-Val-CAC   CGAACCCGG--GCUCAGACA 74
chr-B07.trna29-Val-CAC    CGAACCCGG--GCUCAGACA 74
chr-A08.trna70-Val-CAC    CGAACCCGG--GCUCAGACA 74
chr-B03.trna254-Val-CAC   CGAACCCGG--GCUCAGACA 74
chr-A02.trna58-Val-CAC    CGAAUCCGG--GCUCAGACA 74
chr-A10.trna40-Val-TAC    CGAACCCGG--GCUCAGACA 74
chr-A09.trna5-Val-CAC     CGAACCCGG--GCUCAGACA 74
chr-B07.trna20-Val-CAC    CGAACCUGG--GCUCAGACA 74
chr-B03.trna240-Val-TAC   CGAUCCUGG--GCAGCAACA 73
chr-A03.trna138-Val-TAC   CGAUCCUGG--GCAGCAACA 73
chr-B08.trna115-Val-TAC   CGAUCCUGG--GCAGCAACA 73
chr-A08.trna34-Val-TAC    CGAUCCUGG--GCAGCAACA 73
chr-B03.trna157-Val-TAC   CGAUCCUGG--GCAGCAACA 73
chr-B03.trna131-Val-TAC   CGAUCCUGG--GCAGCAACA 73
chr-A03.trna82-Val-TAC    CGAUCCUGG--GCAGCAACA 73
chr-B03.trna130-Val-TAC   CGAUCCUGG--GCAGCAACA 73
chr-A08.trna29-Val-TAC    CGAUCCUGG--GCAGCAACA 73
chr-B08.trna111-Val-TAC   CGAUCCUGG--GCAGCAACA 73
chr-A10.trna32-Val-TAC    CGAUCCUGG--GCAGCAACA 73
chr-B10.trna8-Val-TAC     CGAUCCUGG--GCAGCAACA 73
chr-A03.trna99-Val-TAC    CGAUCCUGG--GCAACAACA 73
chr-B01.trna72-Val-AAC    UCAGUCCUGG--GUGACGCCA 74
                          .........70.........
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