

```

In[•]:= riemann := riemann = Simplify[Table[
    D[affine[[i, j, l]], coord[[k]]] - D[affine[[i, j, k]], coord[[l]]] +
    Sum[affine[[s, j, l]] × affine[[i, k, s]] - affine[[s, j, k]] × affine[[i, l, s]],
    {s, 1, n}],
    {i, 1, n}, {j, 1, n}, {k, 1, n}, {l, 1, n}]]

```

```

In[•]:= listriemann :=
    Table[If[UnsameQ[riemann[[i, j, k, l]], 0],
        {ToString[R[i, j, k, l]], riemann[[i, j, k, l]]}, {i, 1, n}, {j, 1, n},
        {k, 1, n}, {l, 1, k - 1}]

```

```

In[•]:= TableForm[Partition[DeleteCases[Flatten[listriemann], Null], 2],
    TableSpacing → {2, 2}]

```

Out[•]//TableForm=

```

R[1, 2, 2, 1]   -Sin[θ]2
R[2, 1, 2, 1]   1

```

```

In[•]:= riemannLow := riemannLow = Simplify[Table[
    Sum[metric[[m, i]], {m, 1, n}] × riemann[[i, j, k, l]],
    {i, 1, n}, {j, 1, n}, {k, 1, n}, {l, 1, n}]]

```

```

In[•]:= listriemannLow :=
    Table[If[UnsameQ[riemannLow[[i, j, k, l]], 0],
        {ToString[R[i, j, k, l]], riemannLow[[i, j, k, l]]}, {i, 1, n}, {j, 1, n},
        {k, 1, n}, {l, 1, k - 1}]

```

```

In[•]:= TableForm[Partition[DeleteCases[Flatten[listriemannLow], Null], 2],
    TableSpacing → {2, 2}]

```

Out[•]//TableForm=

```

R[1, 2, 2, 1]   -a2 Sin[θ]2
R[2, 1, 2, 1]   a2 Sin[θ]2

```