

Jst =

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[
  [ 0, -c1*l0,  c2*l0*s1,          c2*s1*(l0 - c2*l1*s3) - l1*s2*(c1*c3 +
s1*s2*s3), - s2*(l1*(c1*c3 + s1*s2*s3) + c4*l2) - c2*s1*(l2*s4 - l0 + c2*l1*s3),
- (c5*(c2*c3*s4 + c2*c4*s3) + s5*(c2*c3*c4 - c2*s3*s4))*(l1*(c1*c3 + s1*s2*s3) +
c4*l2) - (c5*(s4*(c1*s3 - c3*s1*s2) - c4*(c1*c3 + s1*s2*s3)) + s5*(s4*(c1*c3 +
s1*s2*s3) + c4*(c1*s3 - c3*s1*s2)))*(l2*s4 - l0 + c2*l1*s3)]

  [ 0, -l0*s1, -c1*c2*l0,          - l1*s2*(c3*s1 - c1*s2*s3) - c1*c2*(l0 -
c2*l1*s3),          c1*c2*(l2*s4 - l0 + c2*l1*s3) - l1*s2*(c3*s1 - c1*s2*s3),
- (c5*(s4*(s1*s3 + c1*c3*s2) - c4*(c3*s1 - c1*s2*s3)) + s5*(s4*(c3*s1 - c1*s2*s3) +
c4*(s1*s3 + c1*c3*s2)))*(l2*s4 - l0 + c2*l1*s3) - l1*(c5*(c2*c3*s4 + c2*c4*s3) +
s5*(c2*c3*c4 - c2*s3*s4))*(c3*s1 - c1*s2*s3)]

  [ 0,          0,          0, c1*c2*l1*(c1*c3 + s1*s2*s3) + c2*l1*s1*(c3*s1 -
c1*s2*s3),  c1*c2*(l1*(c1*c3 + s1*s2*s3) + c4*l2) + c2*l1*s1*(c3*s1 - c1*s2*s3),
l1*(c3*s1 - c1*s2*s3)*(c5*(s4*(c1*s3 - c3*s1*s2) - c4*(c1*c3 + s1*s2*s3)) +
s5*(s4*(c1*c3 + s1*s2*s3) + c4*(c1*s3 - c3*s1*s2))) - (l1*(c1*c3 + s1*s2*s3) +
c4*l2)*(c5*(s4*(s1*s3 + c1*c3*s2) - c4*(c3*s1 - c1*s2*s3)) + s5*(s4*(c3*s1 -
c1*s2*s3) + c4*(s1*s3 + c1*c3*s2)))]

  [ 0,      -s1,      -c1*c2,
-c1*c2,
c5*(s4*(s1*s3 + c1*c3*s2) - c4*(c3*s1 - c1*s2*s3)) + s5*(s4*(c3*s1 - c1*s2*s3) +
c4*(s1*s3 + c1*c3*s2))]

  [ 0,      c1,      -c2*s1,
-c2*s1,
-c5*(s4*(c1*s3 - c3*s1*s2) - c4*(c1*c3 + s1*s2*s3)) - s5*(s4*(c1*c3 + s1*s2*s3) +
c4*(c1*s3 - c3*s1*s2))]

  [ 1,      0,      -s2,
-s2,
-c5*(c2*c3*s4 + c2*c4*s3) - s5*(c2*c3*c4 - c2*s3*s4)]
]
```