

So luong he truc toa do: 6

n =

6

He truc so Chuyen vi cua he truc, 0/1 (0:Tinh tien, 1:Quay)0

C =

Columns 1 through 10

0 0 0 1 0 1 0 1 0 1

Column 11

0

Dich chuyen theo truc x : 0

dx =

0

Dich chuyen theo truc y : 0

dy =

0

Dich chuyen theo truc z : 11

dz =

11

T =

[ 1, 0, 0, 0]

[ 0, 1, 0, 0]

[ 0, 0, 1, 11]

[ 0, 0, 0, 1]

He truc so Chuyen vi cua he truc, 0/1 (0:Tinh tien, 1:Quay)1

C =

Columns 1 through 10

0 1 0 1 0 1 0 1 0 1

Column 11

0

Quay quanh trục nào x/y/z: z

Q =

z

Gia trị quay quanh trục: t1

t =

t1

T =

```
[ cos(t1), -sin(t1), 0, 0]
[ sin(t1),  cos(t1), 0, 0]
[      0,      0, 1, 1]
[      0,      0, 0, 1]
```

Hệ trục số Chuyển vị của hệ trục, 0/1 (0:Tĩnh tiến, 1:Quay)0

C =

Columns 1 through 10

0 1 0 1 0 1 0 1 0 1

Column 11

0

Dịch chuyển theo trục x : 0

dx =

0

Dịch chuyển theo trục y : 14

dy =

14

Dich chuyen theo truc z : l2

dz =

12

T =

```
[ cos(t1), -sin(t1), 0, -l4*sin(t1)]
[ sin(t1),  cos(t1), 0,  l4*cos(t1)]
[      0,      0, 1,      l1 + l2]
[      0,      0, 0,      1]
```

He truc so Chuyen vi cua he truc, 0/1 (0:Tinh tien, 1:Quay)1

C =

Columns 1 through 10

```
0      1      0      1      0      1      0      1      0      1
```

Column 11

```
0
```

Quay quanh tuc nao x/y/z: z

Q =

z

Gia tri quay quanh truc: t2

t =

t2

T =

```
[ cos(t1)*cos(t2) - sin(t1)*sin(t2), - cos(t1)*sin(t2) - cos(t2)*sin(t1), 0, -l4*sin
(t1)]
[ cos(t1)*sin(t2) + cos(t2)*sin(t1),  cos(t1)*cos(t2) - sin(t1)*sin(t2), 0,  l4*cos
(t1)]
[      0,      0, 1,      l1 + l2]
[      0,      0, 0,      1]
```

```
[
                                0,                                0, 0✗
1]
```

He truc so Chuyen vi cua he truc, 0/1 (0:Tinh tien, 1:Quay)0

C =

Columns 1 through 10

```
0    1    0    1    0    1    0    1    0    1
```

Column 11

```
0
```

Dich chuyen theo truc x : 0

dx =

```
0
```

Dich chuyen theo truc y : 15

dy =

```
15
```

Dich chuyen theo truc z : 13-16-17

dz =

```
13 - 16 - 17
```

T =

```
[ cos(t1)*cos(t2) - sin(t1)*sin(t2), - cos(t1)*sin(t2) - cos(t2)*sin(t1), 0, - 15✗
(cos(t1)*sin(t2) + cos(t2)*sin(t1)) - 14*sin(t1)]
[ cos(t1)*sin(t2) + cos(t2)*sin(t1),  cos(t1)*cos(t2) - sin(t1)*sin(t2), 0,  15✗
(cos(t1)*cos(t2) - sin(t1)*sin(t2)) + 14*cos(t1)]
[
                                0,                                0, 1✗
11 + 12 + 13 - 16 - 17]
[
                                0,                                0, 0✗
1]
```

He truc so Chuyen vi cua he truc, 0/1 (0:Tinh tien, 1:Quay)1

C =

Columns 1 through 10

0 1 0 1 0 1 0 1 0 1

Column 11

0

Quay quanh trục nào x/y/z: z

Q =

z

Gia trị quay quanh trục: t3

t =

t3

T =

```
[ cos(t3)*(cos(t1)*cos(t2) - sin(t1)*sin(t2)) - sin(t3)*(cos(t1)*sin(t2) + cos(t2)*sin(t1)), - cos(t3)*(cos(t1)*sin(t2) + cos(t2)*sin(t1)) - sin(t3)*(cos(t1)*cos(t2) - sin(t1)*sin(t2)), 0, - 15*(cos(t1)*sin(t2) + cos(t2)*sin(t1)) - 14*sin(t1)]
[ cos(t3)*(cos(t1)*sin(t2) + cos(t2)*sin(t1)) + sin(t3)*(cos(t1)*cos(t2) - sin(t1)*sin(t2)), cos(t3)*(cos(t1)*cos(t2) - sin(t1)*sin(t2)) - sin(t3)*(cos(t1)*sin(t2) + cos(t2)*sin(t1)), 0, 15*(cos(t1)*cos(t2) - sin(t1)*sin(t2)) + 14*cos(t1)]
[
0,
0, 1, 11 + 12 + 13 - 16 - 17]
[
0,
0, 0, 1]
```

ans =

```
[ cos(t1 + t2 + t3), -sin(t1 + t2 + t3), 0, - 15*sin(t1 + t2) - 14*sin(t1)]
[ sin(t1 + t2 + t3), cos(t1 + t2 + t3), 0, 15*cos(t1 + t2) + 14*cos(t1)]
[ 0, 0, 1, 11 + 12 + 13 - 16 - 17]
[ 0, 0, 0, 1]
```

>>