
```
% ECE 4560 - Homework 6, Problem 6
```

```
% Caitlyn Caggia
```

```
g1 = SE3([1;2;3],[1 0 0;0 0 -1; 0 1 0]);
```

```
g2 = SE3([2;-1;-1], [sqrt(2)/2 0 -sqrt(2)/2;0 1 0;sqrt(2)/2 0  
sqrt(2)/2]);
```

```
p1 = [4;5;6];
```

```
p2 = [4;5;6;1];
```

```
disp('g3')
```

```
g3 = g1*g2
```

```
disp('g3.*p1')
```

```
ans1 = g3.*p1;
```

```
disp(ans1)
```

```
disp('g3.*p2')
```

```
ans2 = g3.*p2;
```

```
disp(ans2)
```

```
disp('inv(g3)')
```

```
ans3 = inv(g3)
```

```
g3
```

0.7071	0	-0.7071	3.0000
-0.7071	0	-0.7071	3.0000
0	1.0000	0	2.0000
0	0	0	1.0000

```
g3.*p1
```

1.5858
-4.0711
7.0000

```
g3.*p2
```

1.5858
-4.0711
7.0000
1.0000

```
inv(g3)
```

0.7071	-0.7071	0	0
0	0	1.0000	-2.0000
-0.7071	-0.7071	0	4.2426
0	0	0	1.0000

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