

## Sheet 2

### Question 1

Find the final matrix that performs the following operations:  
Rotate about a line parallel to Z axis and passing through the point (3, 5, 4) while using degree 90.

### Question 2

Find the final matrix that performs the following operations:  
Rotate about a line passing through (2,4,6) ,(3,5,8) while using degree 45.

### Question 3

Find the final matrix that performs the following operations:  
Rotate about a line passing through (3, 2, 7) and having the direction (1.2.1) while using degree 90 and apply to rotate the polygon (5,10,20), (4,8,12).(3,5,15).

### Question 4

a line passing through (2,4,8).(4,6,10) while using degree 90.**Find the matrix that perform the generation of new system (u,v,w) and then rotate to general system (x,y,z).**