

```
1  ##inver is a function to find the inverse of a matrix
2  ##Takes an input square matrix A
3  ##returns the inverse of the matrix A
4  function B = inver(A)
5      ##checks if matrix is square
6      if(rows(A) != columns(A))
7          disp("You must enter a square matrix")
8          return
9      endif
10     ##checks if determinant is nonzeros
11     if(det(A) == 0)
12         disp("This matrix is not invertable")
13         return
14     endif
15     r = rows(A);
16     ##making the identity matrix
17     id(1:r,1:r) = 0;
18     for i = 1:r
19         id(i,i) = 1;
20     endfor
21     ##make matrix to hold augmented matrix
22     C(1:r,1:r*2) = 0;
23     ##Augment A with the identity matrix
24     C = [A id];
25     C = rref(C);
26     B = C(1:r,r+1:r*2);
27     return
28 endfunction
29
```