```
function [Rn,i,r] = reflection2D(normal_R,v,ctemp2)
%=========================================================================%
% This function calculates the reflection of the acoustic ray in
% the bottom of the ocean
%  Rn = normal vector to the plane at the point of reflection(Matrix)
%  i = incident acoustic ray
%  r = reflected acoustic ray
%=========================================================================%

Rn=[1-2*(normal_R(1,1)^2),-2*normal_R(1,1)*normal_R(2,1);...
    -2*normal_R(1,1)*normal_R(2,1),1-2*(normal_R(2,1)^2)];
Rn=Rn/norm(Rn);

i=[v(3,ctemp2);v(4,ctemp2)];
i=i/norm(i);

r=Rn*i;
r=r/norm(r);
end
```

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