

Machine precision in single and double precision

```
eps=1  
eps=eps*0.5  
If (eps+1).gt go to Step(2)  
Print eps
```

Program for Single precision

```
eps=single(1);  
while(eps+1>1)  
    eps=eps*0.5;  
end  
disp(eps);
```

Program for double precision

```
eps=1;  
while(eps+1>1)  
    eps=eps*0.5;  
end  
disp(eps);
```

Result for single precision = **5.9605e-08**

Result for double precision = **1.1102e-16**

Comments:

Since in my machine it takes 64bit int as default, so it calculates double precision by default. To calculate single precision I have used **single(x)** so it calculates single precision then.