Ivani Patel
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Editor - C:\Users\ivani\OneDrive\Documents\MATLAB\ass5.m

ass5.m | lec7.m | lec8.m | ctraprule.m | ass6.m | simprule.m

```
integrand=@(x) (100 ./x) .* (sin(10 ./x));
exact=-18.79829683678703;
x=linspace(1,3,10);
A=arbitary_spacing(x,integrand(x));
PD=100*abs((A-exact)/exact);
disp([A, exact, PD])


integrand=@(x) (100 ./x) .* (sin(10 ./x));
exact=-18.79829683678703;
y=linspace(0,log(3),10);
newx=exp(y);
A2 = arbitary_spacing(newx,integrand(newx));
PD2 = 100*abs((A2-exact)/exact);
disp([A2, exact, PD2])


integrand=@(x) (100 ./x) .* (sin(10 ./x));
exact=-18.79829683678703;
y=linspace(0,log(3),10);
xofy=exp(y);
A3=arbitary_spacing(y, xofy.*integrand(xofy));
PD3=100*abs((A3-exact)/exact);
disp([A3,exact, PD3])
```

Command Window

New to MATLAB? See resources for Getting Started.

```
>> ass5
  -22.7015  -18.7983   20.7638

  -19.6448  -18.7983    4.5031

  -19.4646  -18.7983    3.5445

fx >>
```

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Editor - C:\Users\ivani\OneDrive\Documents\MATLAB\ass6.m

ass5.m | lec7.m | lec8.m | ctraprule.m | ass6.m | simprule.m

```
1   myf=@(x) abs((4.*x.^2) .* (exp(-x.^2)) - (2.*exp(-x.^2)));
2   fplot(myf,[0,2])
3
4
5   integrand = @(x) exp(-x^2);
6   exact = 0.882081;
7   A = ctraprule(integrand,0,2,10);
8   error = abs(A-exact);
9   disp([A, exact, error])
10  xlabel('radius')
11  ylabel('abs(4x^2 . exp(-x^2) - 2exp(-x^2))')
```

Command Window

New to MATLAB? See resources for Getting Started.

```
>> ass6
    0.8818    0.8821    0.0003

fx >>
```