

%Output for Forward Difference

```
%{
|----h----|----Df-----|----col3----|----4-----|----5-----|
|5.000000e-01|0.70797195|0.15805345|0.31610690|0.63221380|
|2.500000e-01|0.79485730|0.07116811|0.28467242|1.13868969|
|1.250000e-01|0.83256256|0.03346284|0.26770275|2.14162203|
|6.250000e-02|0.84984178|0.01618362|0.25893797|4.14300747|
|3.125000e-02|0.85807259|0.00795281|0.25448998|8.14367950|
|1.562500e-02|0.86208400|0.00394141|0.25225016|16.14401029|
|7.812500e-03|0.86406348|0.00196192|0.25112636|32.14417437|
|3.906250e-03|0.86504664|0.00097876|0.25056350|64.14425608|
|1.953125e-03|0.86553657|0.00048883|0.25028183|128.14429685|
|9.765625e-04|0.86578113|0.00024428|0.25014093|256.14431723
```

%output for centered

```
|----h----|----Df----|----col3----|----4----)|----5----|
|5.000000e-01|0.83038939|0.03563601|0.03563601|0.03563601|
|2.500000e-01|0.85703245|0.00899295|0.01798590|0.03597180|
|1.250000e-01|0.86377189|0.00225351|0.00901405|0.03605621|
|6.250000e-02|0.86546170|0.00056371|0.00450967|0.03607734|
|3.125000e-02|0.86588446|0.00014095|0.00225516|0.03608263|
|1.562500e-02|0.86599017|0.00003524|0.00112762|0.03608395|
|7.812500e-03|0.86601659|0.00000881|0.00056382|0.03608428|
|3.906250e-03|0.86602320|0.00000220|0.00028191|0.03608436|
|1.953125e-03|0.86602485|0.00000055|0.00014095|0.03608438|
|9.765625e-04|0.86602527|0.00000014|0.00007048|0.03608439|>>
```

%output for 5a

```
|--n--|----xn----|--f(xn)--|---absError---|
|--0--|1.5000000000000000|0.3750000000000000|0.0577800000000000|
|--1--|1.2500000000000000|-1.0468750000000000|0.1922200000000000|
|--2--|1.3750000000000000|-0.4003906250000000|0.0672200000000000|
|--3--|1.4375000000000000|-0.0295410156250000|0.0047200000000000|
|--4--|1.4687500000000000|0.168426513671875|0.0265300000000000|
|--5--|1.4531250000000000|0.068378448486328|0.0109050000000000|
|--6--|1.4453125000000000|0.019154071807861|0.0030925000000000|
|--7--|1.4414062500000000|-0.005259454250336|0.0008137500000000|
|--8--|1.4433593750000000|0.006930790841579|0.0011393750000000|
|--9--|1.4423828125000000|0.000831541605294|0.0001628125000000|
|--10--|1.4418945312500000|-0.002214987645857|0.0003254687500000|
```

%output for 5b

```
|--n--|----xn----|---|f(xn)|---|----AbsError---|
|--0--|1.5000000000000000|0.3750000000000000|0.0577504000000000|
|--1--|1.4444444444444444|0.013717421124828|0.0021948444444444|
|--2--|1.442252903791365|0.000020801826239|0.000003303791365|
|--3--|1.442249570315113|0.000000000048079|0.000000029684887|>>
```

output for 5c

```
|--n--|----xn----|---|f(xn)|---|----AbsError---|
|--0--|2.0000000000000000|5.0000000000000000|0.5575040000000000|
|--1--|1.285714285714286|0.874635568513120|0.156781714285714|
|--2--|1.392059553349876|0.302425514042779|0.050436446650124|
|--3--|1.448265350468349|0.037696782048675|0.005769350468349|
|--4--|1.442035892099417|0.001333208208776|0.000460107900583|
|--5--|1.442248681418065|0.000005546889615|0.000247318581935|
|--6--|1.442249570439116|0.0000000000821887|0.000246429560884|>>
```