

# EECE.2160: ECE Application Programming

## Programming Assignment #5: Integral Approximation with Functions

### Test Cases

The results of a full program run is shown below, with user inputs underlined. Remember, when running the program in zyBooks, user inputs are not shown.

I have put additional spaces between some lines to make the output clearer. These additional lines

```
Enter endpoints of interval to be integrated (low hi): -2.1 1.5  
Enter number of trapezoids to be used: 15  
Using 15 trapezoids, integral between -2.100000 and 1.500000 is  
-0.148162
```

```
Evaluate another interval (Y/N)? Y
```

```
Enter endpoints of interval to be integrated (low hi): -2.1 1.5  
Enter number of trapezoids to be used: 45  
Using 45 trapezoids, integral between -2.100000 and 1.500000 is  
-0.153692
```

```
Evaluate another interval (Y/N)? y
```

```
Enter endpoints of interval to be integrated (low hi): A 3  
Error: Improperly formatted input  
Enter endpoints of interval to be integrated (low hi): 5 4  
Error: low must be < hi  
Enter endpoints of interval to be integrated (low hi): 0 0.1
```

```
Enter number of trapezoids to be used: Q  
Error: Improperly formatted input  
Enter number of trapezoids to be used: 0  
Error: numT must be >= 1  
Enter number of trapezoids to be used: 10  
Using 10 trapezoids, integral between 0.000000 and 0.100000 is  
0.005029
```

```
Evaluate another interval (Y/N)? Q  
Error: must enter Y or N  
Evaluate another interval (Y/N)? N
```