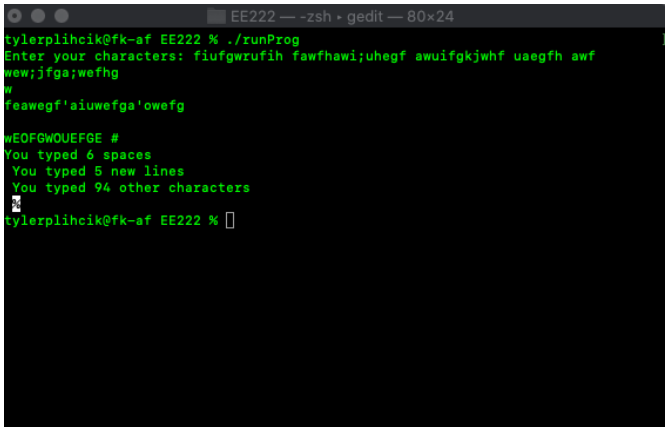
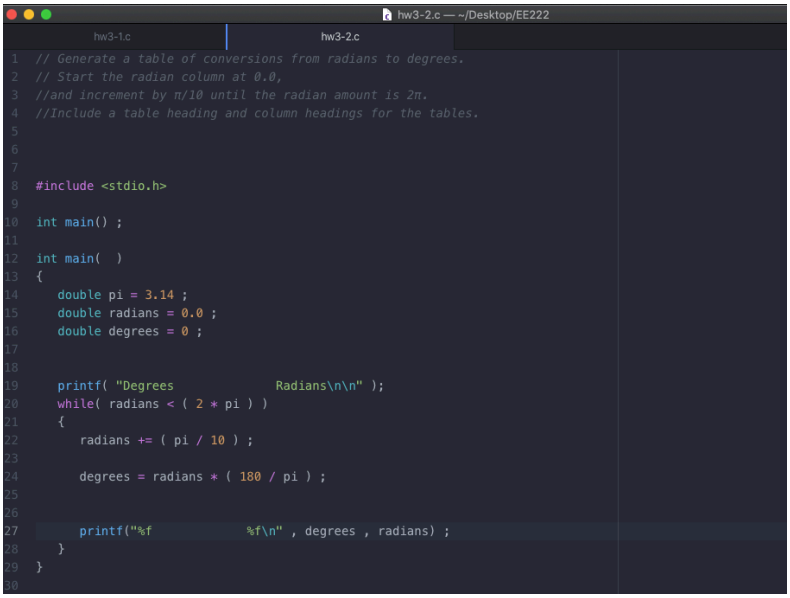
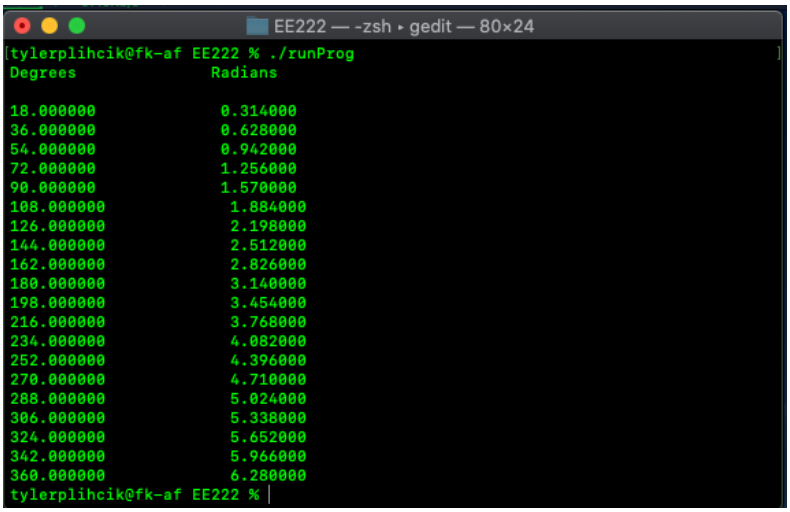
Tyler Plihcik | EE222 | HW 3

1.

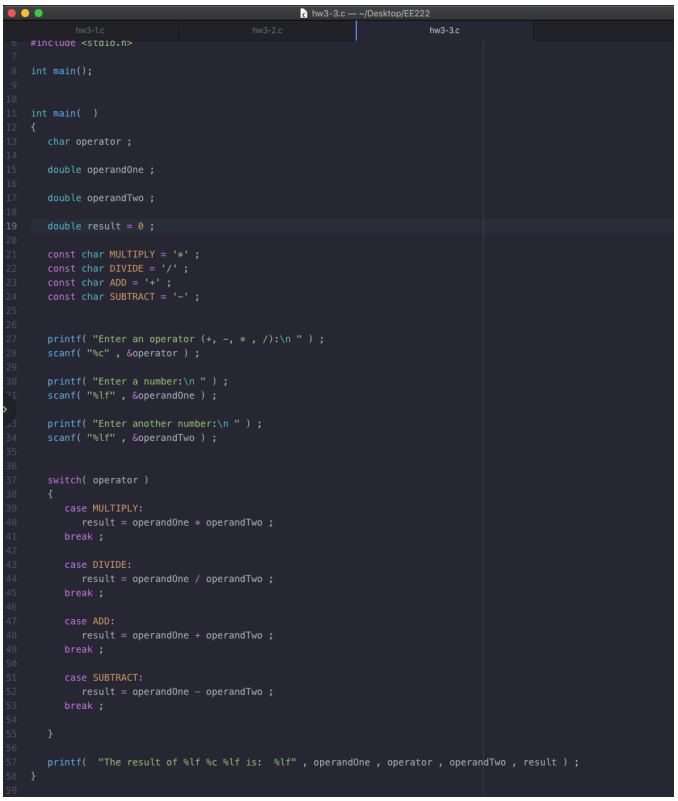


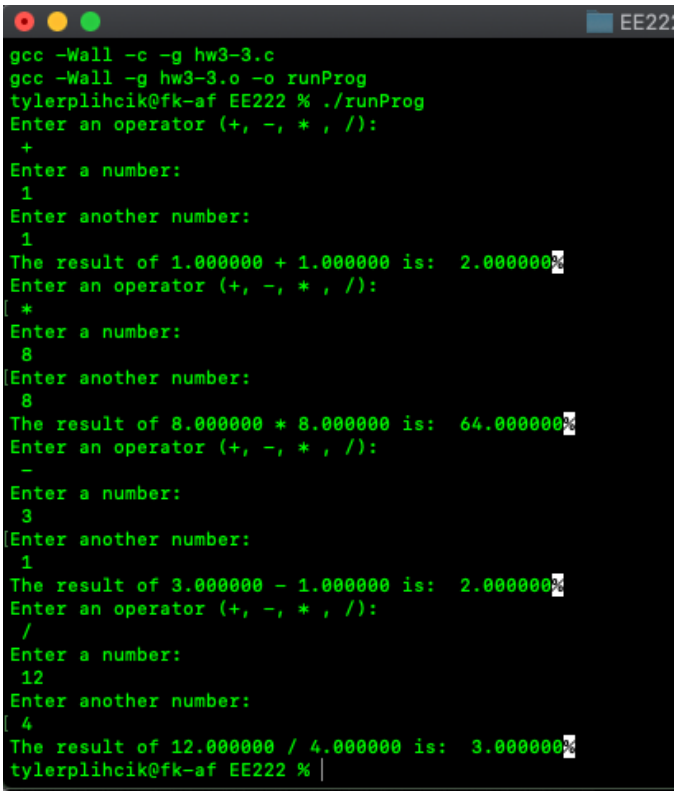
2.


hw3-2.c — ~/Desktop/EE222
hw3-1.c
hw3-2.c
// Generate a table of conversions from radians to degrees.
// Start the radian column at 0.0,
//and increment by π/10 until the radian amount is 2π.
//Include a table heading and column headings for the tables.
#include <stdio.h>
int main() ;
int main( )
{
double pi = 3.14 ;
double radians = 0.0 ;
double degrees = 0 ;
printf("Degrees Radians\n\n");
while(radians < (2 * pi))
{
radians += (pi / 10) ;
degrees = radians * (180 / pi) ;
printf("%f %f\n" , degrees , radians) ;
}
}

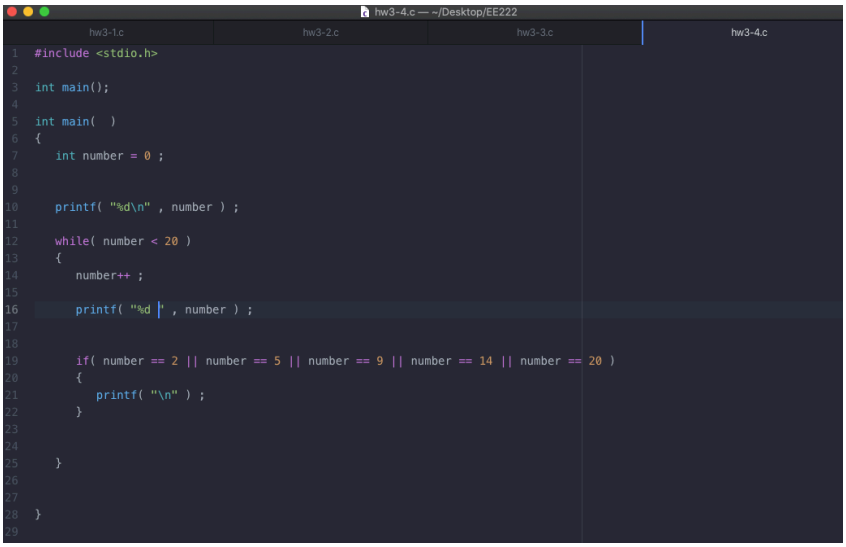

EE222 — -zsh ▸ gedit — 80×24
tylerplihcik@fk-af EE222 % ./runProg
Degrees Radians
18.000000 0.314000
36.000000 0.628000
54.000000 0.942000
72.000000 1.256000
90.000000 1.570000
108.000000 1.884000
126.000000 2.198000
144.000000 2.512000
162.000000 2.826000
180.000000 3.140000
198.000000 3.454000
216.000000 3.768000
234.000000 4.082000
252.000000 4.396000
270.000000 4.710000
288.000000 5.024000
306.000000 5.338000
324.000000 5.652000
342.000000 5.966000
360.000000 6.280000
tylerplihcik@fk-af EE222 %

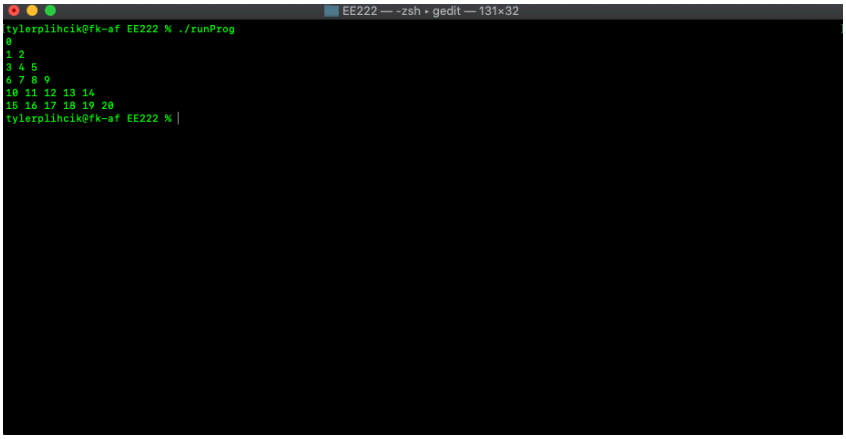
3.


hw3-3.c — ~/Desktop/EE222
hw3-1.c
hw3-2.c
hw3-3.c
#include <stdio.h>
int main();
int main( )
{
char operator ;
double operandOne ;
double operandTwo ;
double result = 0 ;
const char MULTIPLY = '*' ;
const char DIVIDE = '/' ;
const char ADD = '+' ;
const char SUBTRACT = '-' ;
printf("Enter an operator (+, -, * , /):\n ") ;
scanf("%c" , &operator) ;
printf("Enter a number:\n ") ;
scanf("%lf" , &operandOne) ;
printf("Enter another number:\n ") ;
scanf("%lf" , &operandTwo) ;
switch(operator)
{
case MULTIPLY:
result = operandOne * operandTwo ;
break ;
case DIVIDE:
result = operandOne / operandTwo ;
break ;
case ADD:
result = operandOne + operandTwo ;
break ;
case SUBTRACT:
result = operandOne - operandTwo ;
break ;
}
printf("The result of %lf %c %lf is: %lf" , operandOne , operator , operandTwo , result) ;
}


gcc -Wall -c -g hw3-3.c
gcc -Wall -g hw3-3.o -o runProg
tylerplihcik@fk-af EE222 % ./runProg
Enter an operator (+, -, * , /):
+
Enter a number:
1
Enter another number:
1
The result of 1.000000 + 1.000000 is: 2.000000
Enter an operator (+, -, * , /):
*
Enter a number:
8
Enter another number:
8
The result of 8.000000 * 8.000000 is: 64.000000
Enter an operator (+, -, * , /):
-
Enter a number:
3
Enter another number:
1
The result of 3.000000 - 1.000000 is: 2.000000
Enter an operator (+, -, * , /):
/
Enter a number:
12
Enter another number:
4
The result of 12.000000 / 4.000000 is: 3.000000
tylerplihcik@fk-af EE222 %

4.


hw3-4.c — ~/Desktop/EE222
hw3-1.c
hw3-2.c
hw3-3.c
hw3-4.c
#include <stdio.h>
int main();
int main( )
{
int number = 0 ;
printf("%d\n" , number) ;
while(number < 20)
{
number++ ;
printf("%d " , number) ;
if(number == 2 || number == 5 || number == 9 || number == 14 || number == 20)
{
printf("\n") ;
}
}
}


EE222 — -zsh ▸ gedit — 131×32
tylerplihcik@fk-af EE222 % ./runProg
0
1 2
3 4 5
6 7 8 9
10 11 12 13 14
15 16 17 18 19 20
tylerplihcik@fk-af EE222 %

5.

```c
#include <stdio.h>

int main() ;

int main(  )
{
   float numOne ;
   float numTwo ;

   float difference = 0 ;
   float product = 0 ;

   float result = 0 ;

   printf( "Enter a floating-point number: " ) ;
   scanf( "%f" , &numOne ) ;

   printf( "Enter a floating-point number: " ) ;
   scanf( "%f" , &numOne ) ;

   difference = numOne - numTwo ;
   product = numOne * numTwo ;

   result = difference / product ;

   printf( "%f" , result ) ;


}
```

```
tylerplihcik@fk-af EE222 % ./runProg
Enter a floating-point number: 180.000
Enter a floating-point number: 100.000
709145779166089495582742297968640.000000%
tylerplihcik@fk-af EE222 %
```