

Tyler Plihcik
EE222

1.

/*

EE222 HW1

Developed By Tyler Plihcik on 1/18/2020

*/

//headers

#include <stdio.h>

#include <stdlib.h>

/*

asciiToChar, user enters an ascii value and the program returns the char it corresponds to

*/

int main()

{

 //init vars

 int value ;

 //prompt user

 printf("\nPlease enter an ASCII value: \n") ;

 scanf("%d" , &value) ;

 //print result

 printf("\nThe character associated with %d is : %c\n" , value , value) ;

 return 0 ;

}

```
make -f EE222.mf
[tylerplihcik@fk-af EE222 % make -f EE_mf
gcc -Wall -c -g asciiToChar.c
gcc -Wall -g asciiToChar.o -o runProg
[tylerplihcik@fk-af EE222 % ./runProg

Please enter an ASCII value:
68

The character associated with 68 is : D
tylerplihcik@fk-af EE222 % |
```

2.

/*

EE222 HW1

Developed By Tyler Plihcik on 1/18/2020

*/

//headers

#include <stdio.h>

#include <stdlib.h>

int main()

{

 //init vars

 float value ;

 printf("\nPlease enter a floating point value: \n") ;

 scanf("%f" , &value) ;

 printf("\n%f in decimal notation is: %f\n\n" , value , value) ;

 printf("\n%f in exponential notation is: %e\n" , value , value) ;

 return 0 ;

}

```
tylerplihcik@fk-af EE222 % make -f EE_mf clean  
\rm *.o runProg  
tylerplihcik@fk-af EE222 % make -f EE_mf  
gcc -Wall -c -g decimalFormConversions.c  
gcc -Wall -g decimalFormConversions.o -o runProg  
tylerplihcik@fk-af EE222 % ./runProg
```

Please enter a floating point value:

678.02

678.020020 in decimal notation is: 678.020020

678.020020 in exponential notation is: 6.780200e+02

tylerplihcik@fk-af EE222 % |

3.

```
/*  
EE222 HW1  
Developed By Tyler Plihcik on 1/18/2020  
*/
```

```
//headers  
#include <stdio.h>  
#include <stdlib.h>  
#include <math.h>  
  
int main()  
{  
    //init vars  
    int years = 0 ;  
    int seconds ;  
    int exponent ;  
    int multiplier ;  
  
    //prompt user for years  
    printf( "\nHow many years old are you?\n " ) ;  
    scanf( "%d" , &years ) ;  
  
    //calculate multiplier to get years to seconds  
    exponent = pow( 10 , 7 ) ;  
    multiplier = 3.156 * exponent ;  
  
    //multiply years by multiplier above  
  
    seconds = years * multiplier ;  
  
    //print out result  
    printf( "You are %d seconds old.\n\n" , seconds ) ;  
  
}
```

```
tylerplihcik@fk-af EE222 % ./runProg  
How many years old are you?  
20  
You are 631200000 seconds old.  
tylerplihcik@fk-af EE222 % |
```

$$/^{*}$$

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 $\ast/$

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
#include <math.h>
```

 $\{$

```
int diameter ;
```

```
const double PI = 3.14 ;
```

double circumference ;

```
printf( "\nPlease enter the diameter of a circle. " );
```

```
scanf( "%d" , &diameter ) ;
```

```
circumference = ( double )diameter * PI ;
```

```
printf( "A circle with diameter %d has a circumference of %f\n" , diameter ,
```

circumference) ;

}

Please enter the diameter of a circle. 20

A circle with diameter 20 has a circumference of 62.800000

```
tylerplihcik@fk-af EE222 %
```

I^* $\ast/$

```
#include <math.h>
```

 $\{$

```
float underFloater = 1 ;
```

[illegible]

}

```
t Tylerplihcik@fk-af EE222 % make -f EE_mf
gcc -Wall -c -g overFlowExamples.c
overFlowExamples.c:19:14: error: integer literal is too large to be represented
    in any integer type
   number += 11111111111111111111111111111111111111111111111111111111 ;
               ^
overFlowExamples.c:21:19: error: integer literal is too large to be represented
    in any integer type
   overFloater += 11111111111111111111111111111111111111111111111111111111 ;
                   ^
overFlowExamples.c:23:20: error: integer literal is too large to be represented
    in any integer type
   underFloater -= 1111111111111111111111111111111111111111111111111111111...
                    ^
3 errors generated.
make: *** [overFlowExamples.o] Error 1
Tylerplihcik@fk-af EE222 %
```