**COP 2220 006**
**Assignment One**
**9/10/19**
**Matthew Acs**

1.
```
/* COP2220 006: Program to define variables
Author: Matthew Acs
Assignment: One
Date: 9/08/2019*/

#include <stdio.h>
#define PI 3.14159

int main()
{
        double radius,area,circumf; /* define radius, area, and circumf as double variables */
        int num_circ; /* define num_circ as int variable */
        char circ_name; /* define circ_name as char variable */
        return 0;
}
```

2.
In the program, after line 7 a=5 and b=2, after line 8 b=5, and after line 9 a=5.
At the end, two 5s will be printed on one line with a space in between, and the program will then skip a line.

3.
```
/* COP2220 006: Program to display name
Author: Matthew Acs
Assignment: One
Date: 9/08/2019*/

#include <stdio.h>

int main ()
{
   char full[12] = {'M', 'a', 't', 't', 'h', 'e', 'w', ' ', 'A', 'c', 's', '\0'}; /* defines full as a string containing
Matthew Acs */
  char first[8] = {'M', 'a', 't', 't', 'h', 'e', 'w', '\0'}; /* defines first as a string containing Matthew */
  char last[4] = {'A', 'c', 's', '\0'}; /* defines last as a string containing Acs */
  printf("%s\n", full ); /* prints full name on one line*/
  printf("%s\n%s\n", first,last); /* prints first name on one line and last name on another*/
  printf("%s ",first); /* prints first name on one line*/
```

```
   printf("%s",last); /* prints last name on same line as last */
   return 0;
}
```

4.

```
/* COP2220 006: Program to calculate toes
Author: Matthew Acs
Assignment: One
Date: 9/08/2019*/

#include <stdio.h>

int main () {

   int toes; /* define toes as a integer */
   toes = 10; /* set toes to 10 */
   printf("Toes:%d, Toes Times Two:%d, Toes Squared:%d", toes, toes*2, toes*toes); /* print
toes, toes times 2, and toes squared*/
   return 0;
}
```

5.

```
/* COP2220 006: Program to change fahrenheit to celsius
Author: Matthew Acs
Assignment: One
Date: 9/08/2019*/

#include <stdio.h>

int main ()
{
    int fahrenheit; /* define int fahrenheit */
   double celsius; /* define int celsius */
   printf("Insert degrees fahrenheit:"); /* prompt user to input fahrenheit */
   scanf("%d", &fahrenheit); /* take user input and store it in int fahrenheit */
   celsius = 0.55555555*(fahrenheit-32); /* calculate celsius */
   printf("calculating...\n");
   printf("%d degrees fahrenheit = %f degrees celsius", fahrenheit, celsius); /* display output of
calculation */
   return 0;
}
```

6.

```
/* COP2220 006: Program to calculate time to cut grass
```

```
Author: Matthew Acs
Assignment: One
Date: 9/08/2019*/

#include <stdio.h>
#define CUT_TIME 2

int
main ()
{
	float y_length, y_width, h_length, h_width, yard_area, house_area, cutting_area,
seconds, minutes; /* defining all variables as floats */
	printf ("What is the width of your yard?(ft)\n"); /* prompting user for input of yard width */
	scanf ("%f", &y_width);		/* taking input from user and storing it in y_width */
	printf ("What is the length of your yard?(ft)\n"); /* prompting user for input of yard length*/
	scanf ("%f", &y_length); /* taking input from user and storing it in y_length*/
	printf ("What is the width of your house?(ft)\n"); /* prompting user for input of house width
*/
	scanf ("%f", &h_width); /* taking input from user and storing it in h_width */
	printf ("What is the length of your house?(ft)\n"); /* prompting user for input of house
length */
	scanf ("%f", &h_length); /* taking input from user and storing it in h_length */
	yard_area = y_length * y_width;		/* calculating yard area and storing it in yard_area
*/
	house_area = h_length * h_width; /* calculating house area and storing it in
house_area*/
	cutting_area = yard_area - house_area; /* calculating cutting area and storing it in
cutting_area */
	seconds = cutting_area / CUT_TIME; /* calculating seconds it takes to cut grass*/
	minutes = seconds / 60;		/* calculating minutes it will take to cut grass*/
	printf ("It will take %f minutes to cut the grass on your property.", minutes);/* output result
*/
	return 0;
}
```