Assignment-4
CSE 115.7
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1 No Ans
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```c
//*A function 'get_winner' that determines the game result of
tic-tac-toe%/

int  get_winner (char arr[3][3])
{
    char c;
    for(int i= 0; i<3 ; i++)
        if(arr[i][0] == arr[i][1] && arr[i][0]== arr[i][2] )
            c= arr[i][0];
    for(int i=0 ; i<3 ; i++)
        if(arr[0][i]==arr[1][i] && arr[0][i] == arr[2][i] )
            c= arr[0][i];
    if(arr[0][0]==arr[1][1] && arr[1][1]==arr[2][2])
        c= arr[0][0];
    if(arr[0][2]== arr[1][1] && arr[1][1] == arr[2][0])
        c= arr[0][2];

    if (c== 'o')
        return 1;
    else if(c=='x')
        return 2;
    else
        return 0;

}
```

2 NoAm

```c
/* A function that counts 'the' in a string */
int count_the (char str[])
{
        int count = 0;
        int i;
        for (i = 0; str[i] != '\0'; i++)
            {       if (str[i] == ' ' &&
                        str[i+1] == 't' &&
                        str[i+2] == 'h' &&
                        str[i+3] == 'e' &&
                        str[i+4] == ' ' ||
                        str[i] == 'T' &&
                        str[i+1] == 'h' &&
                        str[i+2] == 'e' &&
                        str[i+3] == ' ' )
            {
             count ++;
            }

        }

    return count;

}
```

3NoAm

```c
/* A function 'split_string' that splits string*/

char  split_string (char sen[])
void
      char * part = strtok (sen," ");
      while (part != NULL)
         {
             printf ("%s\n", part);
             part = strtok (NULL," ");
         }
}
```

4NoAm

```c
/* A function 'get_power' that calculates power using recursion*/

int  get_power (int base ,int pow)
{
      if ( pow == 0)
             return 1;

      else
             return base * get_power(base, pow-1);

}
```

```
/* A function named "count_digits" that counts digits
   using recursion */

int count_digits(int n, int count)
{    if(n==0)

     return count;

     else

     return count_digits(n/10, count +1);

}
```