

Assignment 4

EX1:

```
#include <stdio.h>
#include <stdlib.h>
int prime_check(int num);
void prime_interval(int a, int b);

int main()
{
    int num1,num2;
    printf("enter 2 numbers(intervals): ");
    scanf("%d%d",&num1,&num2);
    prime_interval(num1,num2);

    return 0;
}

int prime_check(int num)
{
    int i;
    for(i=2 ; i<num ; i++)
    {
        if(num%i == 0)
        {
            return 0;
        }
    }
    return 1;
}

void prime_interval(int a, int b)
{
    int i;
    printf("Prime numbers between %d and %d are: ",a,b);
    for(i=a+1 ; i<b ; i++)
    {
        if(prime_check(i)==1)
```

```

        {
            printf("%d ",i);
        }
    }
}

```

EX2:

```

#include <stdio.h>
#include <stdlib.h>

int factorial(int num);
int main()
{
    int num;
    printf("enter a positive integer: ");
    scanf("%d",&num);
    printf("the factorial of %d is %d",num,factorial(num));

    return 0;
}

int factorial(int num)
{
    if(num>0)
        return(num*factorial(num-1));
    else
        return 1;
}

```

EX3:

```

#include <stdio.h>
#include <stdlib.h>
#include <string.h>

void text_rev(char st[],int i);

int main()

```

```

{
    char st[100];
    printf("enter a sentence: ");
    gets(st);
    text_rev(st,strlen(st)-1);

    return 0;
}

```

```

void text_rev(char st[],int i)
{
    if(i!=0)
    {
        printf("%c",st[i]);
        i--;
        text_rev(st,i);
    }
    else
        printf("%c",st[i]);
}

```

EX4:

```

#include <stdio.h>
#include <stdlib.h>
#include <string.h>

```

```

int power(int base, int pow);

```

```

int main()
{
    int base, pow;
    printf("enter base number: ");
    scanf("%d",&base);
    printf("enter power number: ");
    scanf("%d",&pow);
    printf("%d ^ %d = %d",base, pow , power(base,pow));
}

```

```
        return 0;
    }

int power(int base, int pow)
{
    if(pow !=0 )
    { pow--;
      return (base * power(base, pow));
    }
    else
        return 1;
}
```