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**LabSheet-4**

**1.**

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

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

```
int main()
```

```
{
```

```
    int i,j;
```

```
    for (i=1; i<300; i++)
```

```
    {
```

```
        for (j=2; j<i ; j++)
```

```
        {
```

```
            if((i%j) == 0)
```

```
            {
```

```
                break;
```

```
            }
```

```
        }
```

```
        if (i==j)
```

```
        {
```

```
            printf("%d ",j);
```

```
        }
```

```
    }
```

```
}
```

2.

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

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

```
int main()
```

```
{
```

```
{
```

```
    int a,b,c;
```

```
    for(a=1; a<=3; a++)
```

```
    {
```

```
        for(b=1; b<=3; b++)
```

```
        {
```

```
            for(c=1; c<=3; c++)
```

```
            {
```

```
                if((a!=b) && (b!=c) && (c!=a))
```

```
                printf("%d %d %d\n",a,b,c);
```

```
            }
```

```
        }
```

```
    }
```

```
}
```

```
return 0;
```

```
}
```

**3.**

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

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

```
int main()
```

```
{
```

```
    int a,b,line ;
```

```
    printf("Please enter how much number of lines are you taken: ");
```

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

```
    for (a=1; a<=line; a++)
```

```
    {
```

```
        for (b=1; b<=a; b++)
```

```
        {
```

```
            printf("%d",b);
```

```
        }
```

```
    printf("\n");
```

```
}
```

```
    return 0;
```

```
}
```

**4.**

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

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

```
int main()
```

```
{
```

```
    int n,r,i;
```

```
long long int nPr , n_factorial=1, nr_factorial=1;
```

```
printf("Please enter any two positive value for n and r: ");
```

```
scanf("%d %d", &n,&r);
```

```
for (i=1; i<=n; i++)
```

```
{
```

```
    n_factorial *=i;
```

```
}
```

```
for (i=1; i<=(n-r); i++)
```

```
{
```

```
    nr_factorial *=i;
```

```
}
```

```
nPr = n_factorial/nr_factorial;
```

```
printf("The value of %dP%d is = %lld ",n,r,nPr);
```

```
return 0 ;
```

```
}
```