

MATRIC NO:18/SCI01/068

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1)

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

```
int main()
```

```
{
```

```
    int i;
```

```
    for ( i = 100; i >= 1; i -=3 )
```

```
    {
```

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

```
    }
```

```
}
```

2)

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

```
int main()
```

```
{
```

```
    int j;
```

```
    printf("input:");
```

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

```
    for (int i = 0; i < 80; i++)
```

```
    {
```

```
        if (j > 59)
```

```
            break;
```

```
        else
```

```
            printf("*");
```

```
    }
```

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

```
    return 0;
```

```
}
```

3)

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

```
int main() {
```

```
    int n, i, flag = 0;
```

```
    printf("Enter a positive integer: ");
```

```

scanf("%d", &n);

for (i = 2; i <= n / 2; ++i) {

    // condition for non-prime
    if (n % i == 0) {
        flag = 1;
        break;
    }
}

if (n == 1) {
    printf("1 is neither prime nor composite.");
}
else {
    if (flag == 0)
        printf("%d is a prime number.", n);
    else
        printf("%d is not a prime number.", n);
}

return 0;
}

```

```

4)
#include<stdio.h>
int main()
{
    int i=1,f=1,num;

    printf("Enter a number: ");
    scanf("%d",&num);

    while(i<=num)
    {
        f=f*i;
        i++;
    }

    printf("Factorial of %d is: %d",num,f);
    return 0;
}

```

5)

```

#include<stdio.h>
int main()
{
int n;
n=50; // Initialize
do
{
printf("%d",n);
n++;
n+=7;
}
while(n<=1000);

printf("\n");

return 0;
}

```

6)

```

#include <stdio.h>

```

```

int main()
{
char ch;

printf("Enter any character: ");
scanf("%c", &ch);

if(ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u' ||
ch=='A' || ch=='E' || ch=='I' || ch=='O' || ch=='U')
{
printf("%c' is Vowel.", ch);
}
else if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z'))
{

printf("%c' is Consonant.", ch);
}
else
{

```

```

        printf("%c' is not an alphabet.", ch);
    }

    return 0;
}

7)
#include <stdio.h>

int main()
{
    int number, i,a;
    printf(" Enter any Number from 1-10:");
    scanf("%d", &number);
    printf("Enter the multiples:");
    scanf("%d",&a);
    printf("Multiplication table of %d:\n ", number);
    printf("-----\n");
    for (i = 1;i <=a ;i++)
    {
        printf(" %d x %d = %d \n ", number, i, number * i);

    }

    return 0;
}

```

```

8)
#include <stdio.h>
int main()
{
    char q1,q2,q3,q4,q5,q6,q7,q8,q9,q10,q11;
    int a,b,c,d,e,f,g,h,i,j;
    printf("Question 1 & 2:");
    scanf("%c\n",&q1);
    printf("Question 3:");
    scanf("%c\n",&q2);
    printf("Question 4:");
    scanf("%c\n",&q3);
    printf("Question 5:");
    scanf("%c\n",&q4);
}

```

```
printf("Question 6:");
scanf("%c\n",&q5);
printf("Question 7:");
scanf("%c\n",&q6);
printf("Question 8:");
scanf("%c\n",&q7);
printf("Question 9:");
scanf("%c\n",&q8);
printf("Question 10:");
scanf("%c\n",&q9);
printf("Total");
scanf("%c",&q10);
```

```
switch(q1)
{
case 'A':
    a = 3;
    break;

case 'B':
    a = 1;
    break;

case 'C':
    a = 2;
    break;
}
```

```
switch(q2)
{
case 'A':
    b = 3;
    break;

case 'B':
    b = 1;
    break;

case 'C':
    b = 2;
    break;
```

```
}
```

```
switch(q3)
```

```
{
```

```
case 'A':
```

```
    c = 3;
```

```
    break;
```

```
case 'B':
```

```
    c = 1;
```

```
    break;
```

```
case 'C':
```

```
    c = 2;
```

```
    break;
```

```
}
```

```
switch(q4)
```

```
{
```

```
case 'A':
```

```
    d = 3;
```

```
    break;
```

```
case 'B':
```

```
    d = 1;
```

```
    break;
```

```
case 'C':
```

```
    d = 2;
```

```
    break;
```

```
}
```

```
switch(q5)
```

```
{
```

```
case 'A':
```

```
    e = 3;
```

```
    break;
```

```
case 'B':
```

```
    e = 1;
```

```
    break;
```

```
case 'C':
```

```
    e = 2;  
    break;  
}
```

```
switch(q6)  
{  
case 'A':  
    f = 3;  
    break;
```

```
case 'B':  
    f = 1;  
    break;
```

```
case 'C':  
    f = 2;  
    break;  
}
```

```
switch(q7)  
{  
case 'A':  
    g = 3;  
    break;
```

```
case 'B':  
    g = 1;  
    break;
```

```
case 'C':  
    g = 2;  
    break;  
}
```

```
switch(q8)  
{  
case 'A':  
    h = 3;  
    break;
```

```
case 'B':  
    h = 1;  
    break;
```

```

    case 'C':
        h = 2;
        break;
    }

    switch(q9)
    {
    case 'A':
        i = 3;
        break;

    case 'B':
        i = 1;
        break;

    case 'C':
        i = 2;
        break;
    }

    switch(q10)
    {
    case 'A':
        j = 3;
        break;

    case 'B':
        j = 1;
        break;

    case 'C':
        j = 2;
        break;
    }
    printf(" score:%d\n",a+b+c+d+e+f+g+h+i+j);
    return 0;
}

9)
#include <stdio.h>
int main(){
    int i,num,product;

```



```

for(i=1,product=1;i<=8;++i){
    printf("Enter num%d:",i);
    scanf("%d",&num);
    if(num==0)
    {
        continue;
    }
    product*=num;
}
printf("product=%d",product);
return 0;
}

```

10)

```

#include<stdio.h>
int main()
{
int count=1,year_num;
float Rate;
unsigned long CurrentYr;
unsigned long NextYr;

while (count<=1)
{
    printf("Enter the initial population: ");
    scanf("%d",&CurrentYr);
    printf("Enter the rate: ");
    scanf("%f",&Rate);

    printf("Year Population\n");
    printf("---- -----\n");

    if ((CurrentYr>0 && CurrentYr<10000000000) && (Rate>0 && Rate<10))
    {
        NextYr = CurrentYr;
        for(year_num=0;year_num<=25;year_num++)
        {
            NextYr = Rate * NextYr * (1-NextYr/10000000000);
            printf("%4d%12d\n",year_num,NextYr);
        }
    }
}

```

```
        break;
    }

    else if ((CurrentYr < 0 || CurrentYr > 10000000000) || (Rate<0 || Rate>10))
    {
        printf("Invalid Input!");
        printf("Enter the initial population: ");
        scanf("%d",&CurrentYr);
        printf("Enter the rate: ");
        scanf("%f",&Rate);
    }
    if ((CurrentYr>0 && CurrentYr<10000000000) && (Rate>0 && Rate<10))
    {
        NextYr = CurrentYr;

        for(year_num=0;year_num<=25;year_num++)
        {
            printf("%4d%12d\n",year_num,NextYr);
            NextYr = Rate * NextYr * (1-NextYr/1000000000);

        }
        break;
    }
}
return 0;
}
```