

① \Rightarrow #include <stdio.h>.

```
int main() {
```

```
int num, first digit, last digit;
```

```
printf("Enter a number: ");
```

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

```
last digit = num % 10;
```

```
first digit = num;
```

```
while (first digit >= 10) {
```

```
first digit = first digit / 10;
```

```
}
```

```
printf("first digit = %d\n", first digit);
```

```
printf("last digit = %d\n", last digit);
```

```
return 0;
```

```
}
```

Output:-

input : 5729

output :

first digit = 5

last digit = 9

```

2) #include <stdio.h>
    int main() {
        int num;
        long long factorial = 1;
        printf("Enter a number: ");
        scanf("%d", &num);
        if (num < 0) {
            printf("factorial of a negative number doesn't exist.\n");
        } else {
            for (int i = 1; i <= num; i++) {
                factorial *= i;
            }
            printf("factorial of %d = %lld\n", num, factorial);
        }
        return 0;
    }

```

Output:-

Input: 5

Output: factorial of 5 = 120

```

3) #include <stdio.h>
    int main() {
        int num, i, is_prime = 1;
        printf("Enter a number: ");
        scanf("%d", &num);
        if (num <= 1) {
            is_prime = 0;
        } else {

```



```

for (i = 2; i <= num / 2; i++) {
    if (num % i == 0) {
        is_prime = 0;
        break;
    }
}

```

if (is_prime)

printf("%d is a prime number.\n", num);

else

printf("%d is not a prime number.\n", num);

return 0;

}

Output :-

input = 7

output = 7 is a prime number.

④ #include <stdio.h>

int factorial (int n) {

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

fact *= i;

return fact; }

int main () {

int num, temp, sum = 0, digit;

printf("Enter a number : ");

scanf("%d", &num);

```

temp = num;
while (temp > 0) {
    digit = temp % 10;
    sum += factorial(digit);
    temp /= 100; }
if (sum == num)
printf("%d is a strong number.\n", num);
else
printf("%d is not a strong number.\n", num);
return 0;
}

```

Output :-

input = 145

output :- 145 is a strong number.

⑤ #include <stdio.h>

```

int main () {
    int num, sum = 0, digit;
    printf("Enter a number : ");
    scanf("%d", &num);
    while (num > 0) {
        digit = num % 10;
        sum += digit;
        num /= 100;
    }
    printf("sum of digits = %d\n", sum);
    return 0;
}

```

Output :-

input = 472

output = sum of digits = 13