Basics

What is a perfect number?

Perfect number is a positive integer that is equal to the sum of all its proper positive divisors excluding the number itself.

For example:

6 is a perfect number

Because the proper positive divisors of 6 are 1, 2 and 3 (excluding 6)

and sum of all its positive divisors i.e. 1 + 2 + 3 = 6

CODE

```c
int number;
printf("Enter the number: ");
scanf("%d", &number);

int i, rem, sum=0;

for(i=1; i<number; i++)
{
    rem=number%i;
    if(rem == 0)
    {
        sum = sum + i;
    }
}
```

6

Iteration 1:
rem = 0
sum = 0 + 1 = 1

Iteration 2:
rem = 0
sum = 1 + 2 = 3

Iteration 3:
rem = 0
sum = 3 + 3 = 6

```c
if( sum == number)
        printf(" %d  is a perfect number", number);
else
        printf("%d is not a perfect number", number);
```