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Task 1

```cpp
//Guess the number
#include <iostream>
using namespace std;
int main()
{
int secret_no, guess_no,count = 0;
cout << "Enter a secret number:";
cin >> secret_no;
do
{
cout << "Guess the number:";
cin >> guess_no;
count += 1;
if (guess_no < secret_no)
cout << "Guess a bigger number" << endl;
if (guess_no > secret_no)
cout << "Guess a smaller number" << endl;
} while (secret_no != guess_no);
cout << "You have won! It took you " << count << " guesses." << endl;
}
```

```
Enter a secret number:123
Guess the number:43
Guess a bigger number
Guess the number:145
Guess a smaller number
Guess the number:123
You have won! It took you 3 guesses.
```

Task 2

```cpp
// Reverse number using do while loop
#include <iostream>
using namespace std;
int main()
{
int num, reverseNum = 0, remainder, originalNum;
cout << "Enter a number: ";
cin >> num;
do
{
remainder = num % 10; // Extract the last digit
reverseNum = (reverseNum * 10) + remainder; // Append it to the reversed number
```

```
num /= 10; // Remove the last digit
} while (num != 0);
cout << "Reversed number = " << reverseNum << endl;
return 0;
}
```

```
Enter a number: 543
Reversed number = 345
```

Task 3

```
// Find HCF of two numbers
#include <iostream>
using namespace std;
int main()
{
int num1, num2, HCF = 1, min,i;
cout << "Enter number 1 :";
cin >> num1;
cout << "Enter number 2:";
cin >> num2;
if (num1 < num2)
min = num1;
else
min = num2;
i = 2;
while(i <= min){
if(num1 % i == 0 && num2 % i == 0){
HCF = HCF * i;
num1 /= i;
num2 /= i;
if(num1 % i == 0 && num2 % i == 0){ //if number is still divided by 'i'
i = i;
}
}else
i += 1;
}
cout << "HCF = " << HCF << endl;
return 0;
}
```

```
Enter number 1 :60
Enter number 2:72
HCF = 12
```

Task 4

```cpp
//Number is prime or composite
#include <iostream>
using namespace std;
int main()
{
int num;
bool flag = true;
cout << "Enter an integer: ";
cin >> num;
if (num <= 1){
cout << num << " is neither prime nor composite." << endl;
return 0;
}
for (int i = 2; i <= num / 2; i++){
if (num % i == 0){
flag = false;
break;
}
}
if (flag)
cout << num << " is a prime number." << endl;
else
cout << num << " is a composite number." << endl;
return 0;
}
```

```
Enter an integer: 324
324 is a composite number.
```

Task 5

```cpp
//Sum the series 1+3+5+7+....100
#include <iostream>
using namespace std;

int main() {
int sum = 0;
for (int i = 1; i <= 100; i += 2) {
sum += i;
}
cout << "The sum of the series 1 + 3 + 5 + ... + 99 is: " << sum << endl;

return 0;
```

```
}
```

```
The sum of the series 1 + 3 + 5 + ... + 99 is: 2500
```