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#include <stdio.h>
//b1 and b2 => binary1 and binary2
//rm => remainder
int main() {
    int b1,b2,rm=0,total[16],i=0;
    printf(" --- Binary Addition ---\n\n");

    printf("Enter The First Binary Number: ");
    scanf("%d",&b1);
    printf("\nEnter The Second Binary Number: ");
    scanf("%d",&b2);

    while (b1!=0 || b2!=0) {
        total[i++]=( b1 % 10 + b2 % 10 + rm ) % 2 ;
        rm=( b1 % 10 + b2 % 10 + rm ) / 2;
        b1=b1/10;
        b2=b2/10;
    }
    if (rm!=0) {
        total[i++] = rm;
        --i;
    }
    printf("\nSum Of The Two Binary Numbers : ");
    while(i>=0){
        printf("%d",total[i--]);
    }
    printf("\n");
    return 0;
}

```

```
#include <stdio.h>

int main() {
    int binary,remainder,decimal = 0 , i = 1 ;

    printf("---BINARY TO DECIMAL CONVERSION PROGRAM---\n\n");

    printf("Enter a Integer Number: ");
    scanf("%d", &binary);

        while (binary != 0) {
            remainder = binary % 10;
            binary /= 10;
            decimal += remainder * i;
            i *= 2;
        }

    printf("\nDecimal Representation : %d\n",decimal);

    return 0;
}
```

```
#include <stdio.h>

int main(){

    int num;
    printf("--- Middle Digit Finder --- \n\n");

    printf("Please enter an integer with 5 digits : ");
    scanf("%d",&num);

    if(num<=99999 && num >= 10000){

        for(int i = 0 ; i<2 ; i++){
            num=num/10;
        }
        num=num%10;

        printf("Middle Digit is : %d",num);
    }

    else {
        printf("!!! Error Please Enter 5 Digits !!!");
    }

    return 0 ;

}
```

```

#include <stdio.h>

void sum(int num );

int main(){
    int number;

    printf("---Computing Of n+nn+nnn ---\n\n");
    printf("Please Enter An Integer : ");
    scanf("%d",&number);
    sum(number);
    return 0 ;
}

void sum(int num ){

    int total=0,multiplier=1;
    int num1,num2;

    if(10>num && num>=0){
        printf("\nSum of this number (n+nn+nnn) : %d\n", (num+(num*11)+(num*111)));
    }

    else if (num>0){
        while(multiplier<=num){
            multiplier=multiplier*10;
        }
        num1=(num*multiplier)+num;
        num2=(num1*multiplier)+num;
        total=num+num1+num2;

        printf("\nSum of this number (n+nn+nnn) : %d\n",total);
    }

    else{
        multiplier=-1;
        while(multiplier>=num){
            multiplier=multiplier*10;
        }
        multiplier=multiplier*(-1);

        num1=(num*multiplier)+num;
        num2=(num1*multiplier)+num;
        total=num+num1+num2;

        printf("\nSum of this number (n+nn+nnn) : %d\n",total);
    }
}

```

```

#include <stdio.h>

void d15();
void d3();
void d5();

int main(){

    printf("--- Finding Divisible Numbers ---\n\n");
    printf("Numbers that are divisible by 3 and 5 : \n");
    d15();
    printf("\nNumbers that are divisible by 5 : \n");
    d5();
    printf("\nNumbers that are divisible by 3 : \n");
    d3();
    return 0 ;
}

void d15(){
    int i ;
    for(i=1 ;i<=100;i++)
        if(i%3==0 && i%5==0 && i%15==0){
            printf("%d ",i);
        }
        else{
            continue;
        }
}

void d5(){
    int i ;
    for(i=1 ;i<=100;i++)
        if(i%5==0){
            printf("%d ",i);
        }
        else{
            continue;
        }
}

void d3(){
    int i ;
    for(i=1 ;i<=100;i++)
        if(i%3==0){
            printf("%d ",i);
        }
        else{
            continue;
        }
}

```

```

#include <stdio.h>
//n => number
//croll => controller

int prime();

int main(){
    printf("--- Sum of First 100 Prime Numbers ---\n\n");
    printf(" Sum is equal to %d ", prime());

    return 0;
}

int prime(){
    int i, n,croll,sum=0;

    for(n = 1; n <= 541; n++){
        croll = 0;

        for (i = 2; i <= n/2; i++){
            if(n%i == 0){
                croll++;
            }
        }
        if(croll == 0 && n != 1 ){
            sum=sum+n;
        }
    }

    return sum;
}

```

```

#include <stdio.h>

int main()
{
    int day, month, year, secondMonth = 28 ;

    printf("--- Day Finder ---\n\n");

    printf("Enter date (DD/MM/YYYY): ");
    scanf("%d/%d/%d", &day, &month, &year);

    if( (year % 4 == 0 && year % 100 != 0 ) || (year % 400 == 0) ){
        secondMonth = 29;
    }

    switch(month)
    {
        case 2:
            day += 31;
            break;
        case 3:
            day += 31+secondMonth;
            break;
        case 4:
            day += secondMonth+(2*31);
            break;
        case 5:
            day += secondMonth+(2*31)+30;
            break;
        case 6:
            day += secondMonth+(3*31)+30;
            break;
        case 7:
            day += secondMonth+(3*31)+(2*30);
            break;
        case 8:
            day += secondMonth+(4*31)+(2*30);
            break;
        case 9:
            day += secondMonth+(5*31)+(2*30);
            break;
        case 10:
            day += secondMonth+(5*31)+(3*30);
            break;
        case 11:
            day += secondMonth+(6*31)+(3*30);
            break;
        case 12:
            day += secondMonth+(6*31)+(4*30);
            break;
    }

    printf("\nDay of year: %d", day);

    return 0;
}

```

```

#include <stdio.h>
//n1 and n2 => number1 and number2
//c => prime counter
//n => number
//croll => controller

float average(int a , int b);

int main(){
    int n1,n2;
    printf("--- Average of Prime Numbers ---\n\n");
    printf("Please Enter First Value :");
    scanf("%d",&n1);
    printf("Please Enter Second Value :");
    scanf("%d",&n2);

    printf("Average is : %.2f",average(n1,n2));

    return 0;
}

float average(int a, int b){
    int i,c=0,n,croll;
    float sum=0,av=0;

    for(n = a+1; n < b; n++){
        croll = 0;
        for (i = 2; i <= n/2; i++){
            if(n%i == 0){
                croll++;
            }
        }
        if(croll == 0 && n != 1 ){
            c++;
            sum=sum+n;
        }
    }

    av=sum/c;
    return av;
}

```