

CP 111 Computer Programming, 2/2554, Section B01/B02

Programming Homework 02 solution

1. Problem name: Range_of_Data

```
#include <stdio.h>
int main()
{
    int x,min,max;
    min=-1;
    max=-1;
    do
    {
        scanf("%d",&x);
        if(x>0)
        {
            if(min==-1 && max==-1)
            {
                min=x;
                max=x;
            }
            else
            {
                if(x>max)
                    max=x;
                if(x<min)
                    min=x;
            }
        }
    }
    while(x>0);
    printf("%d\n",max-min);
    return 0;
}
```

2. Problem name: Div_5_7_11

```
#include <stdio.h>

int main()
{
    int i,N;

    scanf("%d",&N);
    for(i=1;i<=N;i++)
    {
        if( (i%5 == 0 || i%7==0) && (i%11==3) )
        {
            printf("%d\n",i);
        }
    }
    return 0;
}
```

3. Problem name: Mean_Min_Max_2

```
#include <stdio.h>

int main()
{
    int N, sum, min, max, x;
    double mean;

    N=0;
    sum=0;
    do
    {
        scanf("%d", &x);
        if(x>=0)
        {
            if(N==0)
            {
                min=x;
                max=x;
            }
            else
            {
                if(x<min)
                    min=x;
                if(x>max)
                    max=x;
            }
            sum=sum+x;
            N=N+1;
        }
    }while(x>=0);

    mean=(double)sum/N;
    printf("%.2f\n", mean);
    printf("%d\n", min);
    printf("%d\n", max);

    return 0;
}
```

4. Problem name: Div_by_k

```
#include <stdio.h>
int main()
{
    int i, k, m, n, sum;

    scanf("%d %d %d", &k, &m, &n);

    sum=0;
    for(i=m; i<=n; i++)
    {
        if(i%k==0){
            printf("%d\n", i);
            sum=sum+i;
        }
    }
    printf("%d\n", sum);
    return 0;
}
```

5. Problem name: GCD

```
#include <stdio.h>
int main()
{
    int i, x1, x2, tmp, gcd;

    scanf("%d %d", &x1, &x2);
    if(x2<x1)
    {
        tmp=x1;
        x1=x2;
        x2=tmp;
    }

    for(i=x1; i>=1; i--)
    {
        if(x1%i==0 && x2%i==0){
            gcd=i;
            break;
        }
    }
    printf("%d\n", gcd);
    return 0;
}
```

6. Problem name: Deposit_Interest_loop

```
#include <stdio.h>
int main()
{
    double deposit,i_rate,total;
    int i,N;

    scanf("%lf %lf %d",&deposit,&i_rate,&N);
    for(i=1;i<=N;i++)
    {
        total=deposit+(i_rate/100)*deposit;
        printf("%.2f\n",total);
        deposit=total;
    }
    return 0;
}
```

7. Problem name: Neg_Pos_Avg

```
#include <stdio.h>
int main()
{
    int sum_pos,sum_neg,N_pos,N_neg,data;
    double avg_pos,avg_neg;

    sum_pos=0;
    sum_neg=0;
    N_pos=0;
    N_neg=0;
    do{
        scanf("%d",&data);
        if(data!=0)
        {
            if(data>0){
                sum_pos=sum_pos+data;
                N_pos=N_pos+1;
            }
            else
            {
                sum_neg=sum_neg+data;
                N_neg=N_neg+1;
            }
        }
    }while(data!=0);
    avg_pos=(double)sum_pos/N_pos;
    avg_neg=(double)sum_neg/N_neg;
    printf("%.2f\n",avg_pos);
    printf("%.2f\n",avg_neg);

    return 0;
}
```

8. Problem name: Reverse_Number

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

```
int main()
```

```
{
```

```
int num, digit;
```

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

```
    do
```

```
    {
```

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

```
        num = num / 10;
```

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

```
    } while (num != 0);
```

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

```
        return 0;
```

```
}
```