1. 实验目的

(1).使用C语言编写简单C语言程序

(2).掌握IO方法和数据类型

二.实验任务

编写课本习题

三.代码

1.

#include<stdio.h>  
#define P 3.1415  
int main()  
{  
    double r;  
    scanf("%lf",&r);  
    printf("%lf",4/3\*P\*r\*r\*r);  
    return 0;  
}

2.

#include<stdio.h>  
int main()  
{  
    double a;  
    scanf("%lf",&a);  
    printf("%lf",(3\*a\*a\*a\*a\*a+2\*a\*a\*a\*a-5\*a\*a\*a-a\*a+7\*a-6));  
    return 0;  
      
}

3.

#include<stdio.h>  
int main()  
{  
    int input;  
    printf("Enter a dollar amount:");  
    scanf("%d",&input);  
    printf("20 bills:%d\n10 bills:%d\n5 bills:%d\n1 bills:%d",input / 20, (input % 20) / 10, ((input % 20) % 10) / 5, (((input % 20) % 10) % 5));  
    return 0;  
}

4.

#include<stdio.h>  
int main()  
{  
    double mon,dt,pay;  
    char \*num[] = {"first","second","third"};  
    printf("Enter amount of loan:");  
    scanf("%lf",&mon);  
    printf("Enter interest rate:");  
    scanf("%lf",&dt);  
    printf("Enter monthly payment:");  
    scanf("%lf",&pay);  
    for (int i =0;i<3;i++)  
    {  
        printf("Balance remaining after %s payment:%.2lf\n",num[i],mon\*(1+dt/1200)-pay);  
        mon = mon\*(1+dt/1200)-pay;  
    }  
    return 0;  
}

5.

#include<stdio.h>  
int main()  
{  
    int item,d,m,y;  
    double price;  
    printf("Enter item number:");  
    scanf("%d",&item);  
    printf("Enter unit price:");  
    scanf("%lf",&price);  
    printf("Enter purchase date (mm/dd/yyyy):");  
    scanf("%d/%d/%d",&d,&m,&y);  
    printf("Item\tUnit\tPurchase\n");  
    printf("\tPrice\tDate\n");  
    printf("%d\t%.2lf\t%d/%d/%d",item,price,d,y,m);  
    return 0;  
}

6.

#include<stdio.h>  
int main()  
{  
    int a,b,c;  
    printf("Enter the phone number [(xxx) xxx-xxxx]");  
    scanf("(%d)%d-%d",&a,&b,&c);  
    printf("You entered %d.%d.%d",a,b,c);  
    return 0;  
}

7.

#include<stdio.h>  
int main()  
{  
    int a,b,c,d;  
    printf("Enter two fractions separated by a plus sign:");  
    scanf("%d/%d+%d/%d",&a,&b,&c,&d);  
    printf("The sum is %d/%d",a\*d+b\*c,b\*d);  
    return 0;  
}

8.

#include<stdio.h>

int main()

{

int a;

printf("Enter a two-digital number:");

scanf("%d",&a);

printf("The revesal is : %d%d",a%10,a/10);

return 0;

}

9.

#include<stdio.h>  
int main()  
{  
    int a;  
    printf("Enter a number between 0 and 32767:");  
    scanf("%d",&a);  
    printf("%o",a);  
    return 0;  
}

10.

#include<stdio.h>  
int main()  
{  
    char code[11];  
    int a[11],ssum=0,dsum=0,sum=0;  
    for(int i=0;i<11;i++)  
    {  
        scanf("%c",&code[i]);  
    }  
    for(int i=0;i<11;i++)  
    {  
        a[i] = code[i] - 48;  
    }  
    for(int i=0,j=1;i<12,j<12;i+=2,j+=2)  
    {  
        ssum+=a[i];  
        dsum+=a[j];  
    }  
    sum = 9 - (((3\*ssum +dsum)-1) % 10);  
    printf("Check digital:%d",sum);  
    return 0;  
}

11.

#include<stdio.h>  
int main()  
{  
    int num;  
    scanf("%d",&num);  
    do  
    {  
        printf("%d",num%10);  
        num/=10;  
    }while(num);  
    return 0;  
}

四.实验结果

程序全部正常运行，得到结果正确。

五.分析

掌握常见IO函数，循环判断。