//

// main.c

// HW2

//

// Created by Isaiah Hakeem Chennault on 7/27/21.

//

#include <stdlib.h>

#include <stdio.h>

#include <math.h>

**int** main(**int** argc, **const** **char** \* argv[]) {

**double** loanAmount;

**double** interestRatePY;

**int** a;

**double** b;

**double** c;

**double** d;

**double** e;

//n=a, A=b, r=c, B=d, P=e

printf("Enter amount loan $");

scanf("%lf",&loanAmount);

printf("Enter interest rate per year %%");

scanf("%lf",&interestRatePY);

printf("Enter number of payments ");

scanf("d,&a");

d = loanAmount;

b = ((c\*pow(1+c,a))/(pow(1+c,a)-1));

a = interestRatePY/1200;

printf("\n Monthly payment should be %lf\n,b-d\*c");

**for**(**int** i=0;i<24;i++){

printf("=");

printf("\n");

printf("# \t Payment \Principle \t Interest \t Balance\n");

**for**(**int** i=1;i<=a;i++){

**int** t = d\*c ;

**int** e = b-t;

d=d-e;

printf("%d \t $%0.2lf \t $%0.2lf \t $%0.2lf ",i,b,e,t);

**if**(t/10.0<1.0)

printf("\t\t $%0.2lf",d);

printf("\n");

}

**return** 0;

}

}

//

// loanCalcArr.c

// HW2

#include<stdlib.h>

#include<stdio.h>

#include<math.h>

**double** t[100005];

**double** d[100005];

**double** e[100005];

**int** main(**int** argc, **const** **char** \* argv[]) {

**double** amountLoad;

**double** interesrRatepy;

**int** numberPayments;

**char** ch='%';

printf("Enter loan amount $");

scanf("%lf",&amountLoad);

printf("Enter interest rate ");

printf("%c",ch);

scanf("%1f",&interesrRatepy);

printf("Enter number of payments ");

scanf("%d",&numberPayments);

**double** b;

**double** c;

**int** a;

c=interesrRatepy/1200;

a=numberPayments;

b=amountLoad\*((c\*pow(1+c,a))/(pow(1+c,a)-1));

d[0]=amountLoad;

printf("#\Payment \t Principal \t Interest\t Balance \n");

**for**(a=1;a<=numberPayments;a++){

t[a]=d[a-1]\*c;

e[a]=b-t[a];

d[a]=d[a-1]-e[a];

printf("%d \t $%0.21f \t $%0.21f \t $%0.21f \t $%0.21f", a,b,e[a],t[a],d[a]);

printf("\n");

}

**return** 0;

}