**Q1:**

#include <stdio.h>

/\*

Using for loop from 1 to 8 to create 8 rows

If the row is odd, print "\*" in odd position. If not, print "\*" in even position

\*/

int main()

{

    for (int i=1;i<=8;i++)

    {

        if (i%2!=0)

        {

            for (int k=1;k<=16;k++)

            {

                if (k%2==0)

                    printf(" ");

                else

                    printf("\*");

            }

            printf("\n");

        }

        else

        {

            for (int n=1;n<=16;n++)

            {

                if (n%2==0)

                    printf("\*");

                else

                    printf(" ");

            }

            printf("\n");

        }

    }

    return 0;

}

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**Q2:**

#include <math.h>

#include <stdio.h>

int fact(int);

int fact(int *n*)

{

    int total;

    for (int i = 1;i<=*n*;i++)

    {

        total \*= i;

    }

    return total;

}

int main()

{

    double e=1,num=1,denum=1,x;

    printf("Input x: ");

    scanf("%lf",&x);

    for (double k=1;k<=10;k++)

    {

        num \*= x;

        denum \*= k;

        e += num/denum;

        printf("k=%0.0lf, num = %0.0lf, denum=%0.0lf, e^%0.0lf = %lf, error = %lf\n",k,num,denum,x,e,e-exp(x));

    }

    return 0;

}

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**Q3:**

#include <stdio.h>

/\*

Enter a number

Iteration 1) print the last digit

Iteration 2) print the tenth digit

Until complete the number

\*/

int main()

{

    int n;

    printf("Enter a number: ");

    scanf("%d",&n);

    if (n==0)

        printf("0");

    else

    {

    while (n>0)

    {

        int remain;

        remain = n%10;

        printf("%d\t",remain);

        n /= 10;

    }

    }

    return 0;

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**Q4:**

#include <stdio.h>

/\*

Enter first number and assign it to be max and min

Using while loop to input integers (0 to end)

If n is smaller than min, then min = n. If n is larger than max, then max = n

Print max and min

\*/

int main()

{

    int n=1,first,min,max;

    printf("Enter the integers (0 to end): ");

    scanf("%d",&first);

    min,max = first,first;

    while (n!=0)

    {

        scanf("%d",&n);

        if (n<min)

            min = n;

        if (n>max)

            max = n;

    }

    printf("Max: %d\n",max);

    printf("Min: %d\n",min);

    return 0;

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**Q5:**

#include <stdio.h>

/\*

Enter the mileage (>=2km)

Calculate the sum (first 2km is 15000 VND, each next 250m is 2000 VND and if the mileage is larger than 30km, it costs 5000 VND each extra km)

Print the money to be paid

\*/

int main()

{

    float paid=15000, mileage, secondcount, thirdcount;

    printf("Enter travel distance in meters: ");

    scanf("%f",&mileage);

    if (mileage < 2000)

    {

        printf("The distance is not enough to calculate");

    }

    else if (mileage < 30000)

    {

        secondcount = (mileage-2000)/250;

        if (secondcount<1)

            printf("The amount of money to be paid: %0.2f VND",paid);

        else

            paid = 15000+2000\*secondcount;

            printf("The amount of money to be paid: %0.2f VND",paid);

    }

    else

    {

        thirdcount = 5\*(mileage - 30000);

        paid = 224000 + thirdcount;

        printf("The amount of money to be paid: %0.2f VND",paid);

    }

    return 0;

}

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