Loop Exercises::::::::::::::::::

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| 1.  #include <stdio.h>  int main()  {  int n,i;  printf("Input a number : ");  scanf("%d",&n);  i=1;  while(i<=n)  {  printf("%d\n",i);  i++;  }  return 0;  } | 2.  #include <stdio.h>  int main()  {  int n,i;  printf("Input a number : ");  scanf("%d",&n);  i=n;  while(i>=1)  {  printf("%d\n",i);  i--;  }  return 0;  } |
| 3.  #include <stdio.h>  int main()  {  char ch;  printf("Showing a to z : ");  ch=97;  while(ch<=122)  {  printf("\n%c",ch);  ch++;  }  return 0;  } | 4.  #include <stdio.h>  int main()  {  int i=1;  printf("Showing even number between 1 to 100 : ");  while(i<=100)  {  i++;  if(i%2!=0)  continue;  printf("\n%d",i);  }  return 0;  } |
| 5.  #include <stdio.h>  int main()  {  int i=1;  printf("Showing odd number between 1 to 100 : ");  while(i<=100)  {  if(i%2!=0)  printf("\n%d",i);  i++;  }  return 0;  } | 6.  #include <stdio.h>  int main()  {  int i,n,sum=0;  printf("Input a number : ");  scanf("%d",&n);  for(i=1;i<=n;i++)  {sum+=i;  printf("%d\n",i);}  printf("Summetion all num = %d\n",sum);  return 0;  } |

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| 7.  #include <stdio.h>  int main()  {  int i,n,sum=0;  printf("Input a number : ");  scanf("%d",&n);  for(i=1;i<=n;i++)  { if(i%2==0)  {sum+=i;  printf("%d\n",i);}  else  continue;  }  printf("Summetion all even num = %d\n",sum);  return 0;  } | 8.  #include <stdio.h>  int main()  {  int i,n,sum=0;  printf("Input a number : ");  scanf("%d",&n);  for(i=1;i<=n;i++)  { if(i%2!=0)  {sum+=i;  printf("%d\n",i);}  else  continue;  }  printf("Summetion all odd num = %d\n",sum);  return 0;  } |
| 9.  #include <stdio.h>  int main()  {  int n,i,m=1;  printf("Input a number : ");  scanf("%d",&n);  for(i=1;i<=10;i++)  {  m=n\*i;  printf("%dx%d=%d\n",n,i,m);  }  return 0;  } | 10.  #include<stdio.h>  int main()  {  int n,t,count=0;  printf("Input a number : ");  scanf("%d",&n);  while(n!=0)  {  t=n/10;  count++;  n=t;  }  printf("number of digit is %d\n",count);  return 0;  } |
| 11.  #include<stdio.h>  int main()  {  int n,ld;  printf("Input a number : ");  scanf("%d",&n);  ld=n%10;  while(n>=10)  {  n=n/10;  }  printf("First digit of this number is = %d\n",n);  printf("Last digit of this number is = %d\n",ld);  return 0;  } | 12.  #include<stdio.h>  int main()  {  int n,ld,sum=0;  printf("Input a number : ");  scanf("%d",&n);  ld=n%10;  while(n>=10)  {  n=n/10 ;  }  sum=n+ld;  printf("Summetion of first and last digit = %d\n",sum);  return 0;  } |

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| 13.  #include<stdio.h>  int main()  {  int n,temp,rev=0,swap,l,f;  printf("Input a number : ");  scanf("%d",&n);  temp=n;  l=n%10;  while(n>10)  {  n=n/10;  }  f=n;  n=temp/10;  while(n>10)  {  rev=rev\*10+n%10;  n=n/10;  }  swap=l;  while(rev>0)  {  swap=swap\*10+rev%10;  rev=rev/10;  }  swap=swap\*10+f;  printf("%d\n",swap);  return 0;  } | 14.  #include<stdio.h>  int main()  {  int n,sum=0,temp;  printf("Input a number : ");  scanf("%d",&n);  while(n!=0)  {  temp=n%10;  sum=sum+temp;  n=n/10;  }  printf("%d",sum);  return 0;  } |
| 15.  #include<stdio.h>  int main()  {  int n,prod=1,temp;  printf("Input a number : ");  scanf("%d",&n);  while(n!=0)  {  temp=n%10;  prod=prod\*temp;  n=n/10;  }  printf("%d",prod);  return 0;  } | 16.  #include<stdio.h>  int main()  {  int n,rev=0,temp;  printf("Input a number : ");  scanf("%d",&n);  while(n>0)  {  temp=n%10;  rev=rev\*10+temp;  n=n/10;  }  printf("%d",rev);  return 0;  } |

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| 17.  #include<stdio.h>  int main()  {  int n,rev=0,temp,c;  printf("Input a number : ");  scanf("%d",&n);  c=n;  while(n>0)  {  temp=n%10;  rev=rev\*10+temp;  n=n/10;  }  n=c;  if(n==rev)  printf("%d is palindrome",n);  else  printf("%d is not palindrome",n);  return 0;  } | 18.  #include<stdio.h>  int main()  {  long int n;  int freq[10],l,i;  printf("Input a number : ");  scanf("%d",&n);  for(i=0;i<10;i++)  {  freq[i]=0;  }  while(n!=0)  {  l=n%10;  freq[l]++;  n=n/10;  }  for(i=0;i<10;i++)  {  printf("Frequency of %d = %d\n",i,freq[i]);  }  return 0;  } |
| 19.  #include<stdio.h>  int main()  {  int n,rev=0;  printf("Input a number : ");  scanf("%d",&n);  while(n!=0)  {  rev=rev\*10+n%10;  n=n/10;  }  while(rev!=0)  {  switch(rev%10)  {  case 0:  printf(" Zero ");  break;  case 1:  printf("One ");  break;  case 2:  printf("Two ");  break;  case 3:  printf("Three ");  break;  case 4:  printf("Four ");  break;  case 5:  printf("Five ");  break;  case 6:  printf("Six ");  break;  case 7:  printf("Seven ");  break;  case 8:  printf("Eight ");  break;  case 9:  printf("Nine ");  break;  }  rev=rev/10;  }  return 0;  } | 20.  #include<stdio.h>  int main()  {  int i;  printf("Showing all ASCII character with there values : \n");  for(i=0;i<256;i++)  {  printf("ASCII value of character %c = %d\n",i,i);  }  return 0;  }  21.  #include<stdio.h>  int main()  {  int i,n,x;  double y=1;  printf("Input the value of x and n ,(x)^n : ");  scanf("%d %d",&x,&n);  for(i=1;i<=n;i++)  {  y=x\*y;  }  printf("(%d)^%d = %lf\n",x,n,y);  return 0;  } |
| 22.  #include<stdio.h>  int main()  {  int n,i;  printf("Input a number to show all factors : ");  scanf("%d",&n);  for(i=1;i<=n;i++)  {  if(n%i==0)  {  printf("%d\n",i);  }  }  return 0;  } | 23.  #include<stdio.h>  int main()  {  int n;  double fact=1;  printf(“Input a number : “);  scanf("%d", &n);  if(n>=0)  {  if(n==0)  printf("%lf",fact);  else  while(n!=0)  {  fact=fact\*n;  n=n-1;  }  printf("%lf",fact);  }  else  printf("enter positive number !!");  return 0;  } |

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| 24.  #include<stdio.h>  int main()  {  int s,l,min,t,grat;  printf("Input 2 number : ");  scanf("%d %d",&s,&l);  min=(s<l)?s:l;  grat=(s<l)?l:s;  while(min!=0)  {  t=grat%min;  grat=min;  min=t;  }  printf("HFC is = %d",grat);  return 0;  } | 25.  #include<stdio.h>  int main()  {  int x,y,i;  printf("Enter 2 number : ");  scanf("%d %d",&x,&y);  for(i=1; i<=x\*y; i++)  {  if(i%x==0 && i%y==0)  break;  }  printf("LCM IS = %d\n",i);  return 0;  } |
| 26.  #include<stdio.h>  int main()  {  int n,i,m=1;  printf("Input a number to check prime : ");  scanf("%d",&n);  for(i=2;i<n;i++)  {  if(n%i==0)  m=0;  break;  }  if(m==1)  printf("Prime");  else  printf("Not prime");  return 0;  } | 27.  #include<stdio.h>  int main()  {  int l,i,j;  printf("Input the range to find prime number : ");  scanf("%d",&l);  for(i=1; i<=l; i++)  {  for(j=2; j<i; j++)  {  if(i%j==0)  break;  }  if(j==i)  {  printf("\n%d\n",i);  }  }  return 0;  } |

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| 28.  #include<stdio.h>  int main()  {  int l,i,j,sum=0;  printf("Input the range to find prime number : ");  scanf("%d",&l);  for(i=1; i<=l; i++)  {  for(j=2; j<i; j++)  {  if(i%j==0)  break;  }  if(j==i)  {  printf("\n%d\n",i);  sum=sum+i;  }  }  printf("Summetion between 1 to %d = %d\n",l,sum);  return 0;  } | 29.  #include <stdio.h>  int main()  {  int i, j, num, m;  printf("Input a number to print Prime factors: ");  scanf("%d", &num);  printf("All Prime Factors of %d are: \n", num);  for(i=2; i<=num; i++)  {  if(num%i==0)  {  m = 1;  for(j=2; j<=i/2; j++)  {  if(i%j==0)  {  m= 0;  break;  }  }  if(m==1)  {  printf("%d\n", i);  }  }  }  return 0;  } |
| 30.  #include <stdio.h>  #include<math.h>  int main()  {  int n,num, rem,c=0;  double sum=0;  printf("Input a number to check armostrong : ");  scanf("%d",&n);  num=n;  while(num!=0)  {  num=num/10;  c++;  }  num=n;  31.  #include <stdio.h>  #include<math.h>  int main()  {  long int n,num, rem,c,i;  double sum;  printf("Input a last number to show armostrong number : ");  scanf("%ld",&n);  for(i=1; i<=n; i++)  {  num=i;  sum=0;  c=0;  while(num!=0)  {  num=num/10;  c=c+1;  }  num=i;  while(num!=0)  {  rem=num%10;  sum=(sum+pow(rem,c));  num=num/10;  }  if(sum==i)  {  printf("%ld\n",i);  }  }  return 0;  } | while(num!=0)  {  rem=num%10;  sum=(sum+pow(rem,c));  num=num/10;  }  if(sum==n)  {  printf(“%d is an Armostrong number”,n);  }  else  printf(“%d is not an Armostrong number”,n);  return 0;  }  32.  #include<stdio.h>  int main()  {  int i,n,sum=0;  scanf("%d",&n);  for(i=1; i<n; i++)  {  if(n%i==0)  {  sum=sum+i;  }  }  if(sum==n)  printf("%d ia a perfect number ",n);  else  printf("%d is not a perfect number",n);  return 0;  } |

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| 33.  #include<stdio.h>  int main()  {  int n,sum,i,j;  printf("Input last number to print perfect number : ");  scanf("%d",&n);  for(i=1;i<=n;i++)  {  sum=0;  for(j=1;j<i;j++)  {  if(i%j==0)  {  sum=sum+j;  }  }  if(sum==i)  {printf("%d is a perfect number\n",i);}  }  return 0;  } | 34.  #include<stdio.h>  int main()  {  int n,sum=0,i,l,o;  long int fact;  scanf("%d",&n);  o=n;  while(n!=0)  {  fact=1;  l=n%10;  for(i=1;i<=l;i++)  {  fact=fact\*i;  }  sum=sum+fact;  n=n/10;  }  n=o;  if(sum==n)  printf("%d is a strong number",n);  else printf("%d is not a strong number",n);  return 0;  } |
| 35.  #include<stdio.h>  int main()  {  long int n,i,l,num,j;  long int fact,sum;  printf("Input last number to show strong number : ");  scanf("%ld",&num);  for(i=1;i<=num;i++)  {sum=0;  n=i;  while(n!=0)  {  fact=1;  l=n%10;  for(j=1;j<=l;j++)  {  fact=fact\*j;  }  sum=sum+fact;  n=n/10;  }  if(sum==i)  printf("%ld is a strong number\n",i);  } return 0; } | 36.  #include<stdio.h>  int main()  {  int a=0,b=1,c=0,i,n\_term;  printf("Input term to show fbonacci series : ");  scanf("%d",&n\_term);  for(i=1;i<=n\_term;i++)  {  printf("%d ",c);  a=b;  b=c;  c=a+b;  }  return 0;  } |