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| 1.write a program that read in a line of uppercase text, store it in an appropriate array, and then write it out in lowercase.  //1803117  #include<stdio.h>  #include<ctype.h>  #include<string.h>  int main()  {  char a[100],i;  printf("Enter a line of text :\n");  gets(a);  for(i=0;a[i]!='\0';i++)  {  if(a[i]>='A' && a[i]<='Z')  a[i]=tolower(a[i]);  }  puts(a);  return 0;  } | 2. Write a program that read in a line of mixed text, store it in an appropriate array, and then write it out with all lowercase and  uppercase letters reversed, all digits replaced by ***OS,*** and all other characters (nonletters and nondigits)  replaced by asterisks (\*).  //1803117  #include<stdio.h>  #include<ctype.h>  #include<string.h>  int main()  {  char a[1000],i;  printf("Enter a line of text :\n");  gets(a);  for(i=0;a[i]!='\0';i++)  {  if(a[i]>='A' && a[i]<='Z')  {a[i]=tolower(a[i]);}  else if(a[i]>='a' && a[i]<='z')  {  a[i]=toupper(a[i]);  }  else if(a[i]>='0' && a[i]<='9')  {  a[i]='0';  }  else if(a[i]==' ')  {  continue;  }  else  {  a[i]='\*';  }  }  puts(a);  return 0;  } |

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| 3. Write a program that reads a word , phrase or sentence continuously and print it is palindrome or not .And to stop press “END” .  //1803117  #include<stdio.h>  #include<ctype.h>  #include<string.h>  int main()  {  char a[1000],i;  while(1){  printf("Enter a word , phrase or sentence below or press 'END' to stop:\n");  gets(a);  if(strcmp(a,"END")!=0){  for(i=0;a[i]!='\0';i++)  {  if(a[i]-a[strlen(a)-i-1]==0)  continue;  else  break;  }  if(i==strlen(a))  printf("Palindrome\n");  else  printf("Not Palindrome\n");}  else  {printf("BYE!!\n");  break;}  }  return 0;  } | 4.Write a program that reads n numbers and print the average of n numbers .  //1803117  #include<stdio.h>  int main()  {  int n,i;  float a,sum=0;  printf("How many number ?\n");  scanf("%d",&n);  printf("Enter %d numbers :\n",n);  for(i=0;i<n;i++)  {  scanf("%f",&a);  sum=sum+a;  }  printf("Average = %f\n",sum/n);  return 0;  } |

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| 5. Write a program that reads n numbers and print the average of nonnegative numbers .  //1803117  #include<stdio.h>  int main()  {  int n,i;  float a,sum=0,j=0;  printf("How many number ?\n");  scanf("%d",&n);  printf("Enter %d numbers :\n",n);  for(i=0;i<n;i++)  {  scanf("%f",&a);  if(a>0){  sum=sum+a;  j++;  }  }  printf("Average = %f\n",sum/j);  return 0;  } | 6.write a program that the size of the list of numbers being averaged is not specified  in advance. Continue looping (i.e., reading in a new value for **x** and adding it to **sum)** until a value of zero is  entered. Thus, **x** = ***0*** will signal a stopping condition.  //1803117  #include<stdio.h>  int main()  {  int i,j=0;  float a,sum=0;  for(i=0;;i++)  { printf("Enter a number :\n");  scanf("%f",&a);  sum=sum+a;  if(a==0)  {  break;  }  j++;  }  if(j>0)  printf("Average = %f\n",sum/j);  return 0;  } |

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| 7.Write a program that calculate depreciation using one of three different methods .  //1803117  #include <stdio.h>  int main( )  {  int n, year, choice = 0;  float val, tag, deprec;  while (choice != 4)  {  printf("\nMethod: (1-SL 2-DDB 3-SYD 4-End) ");  scanf("%d", &choice);  if (choice >= 1 && choice <= 3)  {  printf("original value: ");  scanf("%f",&val);  printf ("Number of years: ") ;  scanf ("%d",&n) ;  }  switch (choice)  {  case 1:  printf("\nStraight-Line Method\n\n");  deprec = val/n;  for (year = 1; year <= n; ++year)  {  val -= deprec;  printf("End of Year %2d", year);  printf(" Depreciation: %7.2f",deprec);  printf(" Current Value: %8.2f\n",val);  }  break;  case 2:  printf("\nDouble-Declining-Balance Method\n\n");  for (year = 1; year <= n; ++year)  {  deprec = 2\*val/n;  val -= deprec;  printf ("End of Year %2d", year);  printf(" Depreciation: %7.2f",deprec);  printf (" Current Value: %8.2f \n",val) ; | | }  break;  case 3:  printf("\nSum-Of-The-Years\'-DigitsMethod\n\n");  tag = val;  for (year = 1; year <= n; ++year)  {  deprec = (n-year+1)\*tag / (n\*(n+1)/2);  val -= deprec;  printf("End of Year %2d",year);  printf(" Depreciation: %7.2f", deprec);  printf(" Current Value: %8.2f\n", val);  }  break;  case 4:  printf("\nGoodbye, have a nice dayl\n");  break;  default :  printf("\nIncorrect data entry - please try again\n");  }  }  } | |
| 8. Write a program that determine the roots of an algebraic equation using an iterative procedure of the equation given below .  Which was presented  //1803117  #include<stdio.h>  #include<math.h>  int main()  {  int i;  float guess,root,test,error;  printf("Initial guess : ");  scanf("%f",&guess);  for(i=1;;i++)  {  test=((10-(pow(guess,5)))/3);  if(test>0)  {  root=pow(test,0.2);  printf("\nIteration number : %2d",i);  printf(" x=%7.5f",root);  error=fabs(root-guess);  if(error>0.00001)  {  guess=root;  }  else  {  printf("\n\nRoot= %7.5f",root);  printf(" No. of iterations= %2d",i);  break;  }  }  else if(test<0)  {  printf("\nNumber out of range - try another initial guess");  break;  }  if(i==50 && error>0.00001)  {  printf("\n\nConvergence not obtained after 50 iteration");  break;  }  }  return 0; }  10. Write a program that determine the roots of the quadratic equation  Using the well – known quadratic formula  //1803117  #include<stdio.h>  #include<math.h>  int main()  {  float a,b,c,root1,root2;  printf("Enter the values of a,b and c :\n");  scanf("%f %f %f",&a,&b,&c);  if(((b\*b)-(4\*a\*c))>=0)  {  root1=(-b+sqrt((b\*b)-(4\*a\*c)))/(2\*a);  root2=(-b-sqrt((b\*b)-(4\*a\*c)))/(2\*a);  printf("Root1 = %f\nRoot2 = %f\n",root1,root2);  }  else  {  printf("\nThere is not exist real value for these value you entered !!");  }  return 0;  } | 9. **W**rite a program that calculate the weighted average of a list of n numbers , using the formula  Where the *f’s are fractional weighting factor , i.e.,*  ***0 ≤*** *and*  //1803117  #include<stdio.h>  int main()  {  int i,n;  float f,x,avg=0;  printf("How many number ? \n");  scanf("%d",&n);  for(i=1;i<=n;i++)  {  printf("Enter the value of f and x :\n");  scanf("%f %f",&f,&x);  avg=avg+(f\*x);}  printf("The weighted average = %.3f\n",avg);  return 0;  }  11. Write a program that determine the first n Fibonacci numbers.  //1803117  #include<stdio.h>  int main()  {  int a,b,c,i,n;  a=1;  b=0;  c=1;  printf("How many number ?\n");  scanf("%d",&n);  printf("First %d fibonacci numbers :\n",n);  for(i=1; i<=n; i++)  {  a=b;  b=c;  c=a+b;  printf("%d ",b);  }  return 0;  } |
| 12.Write a program that print first n prime numbers .  //1803117  #include<stdio.h>  #include<math.h>  int main()  {  int i,j,n;  printf("How many numbers ?\n");  scanf("%d",&n);  printf("First %d prime numbers :\n",n);  for(i=1;i<=n;i++)  {  for(j=2;j<=i/2;j++)  {  if(i%j==0)  {  break;  }    13.Write a program that reads a number and print prime or not continuously till then user entered 0 .  //1803117  #include<stdio.h>  #include<math.h>  int main()  {  int j,n;  while(1){  printf("Enter a number :\n");  scanf("%d",&n);  if(n==0)  {  break;  }  for(j=2;j<=n/2;j++)  {  if(n%j==0)  {  break;  }  else  continue;  }  if(j==(n/2)+1)  {  printf("Prime\n");  }  else  {  printf("Not Prime\n");  }  }  return 0;  } | else  continue;  }  if(j==(i/2)+1)  {  printf("%d\n",i);  }  }  return 0;  }  14.Write a program that determine the summation of first n odd numbers .  //1803117  #include<stdio.h>  int main()  {  int i,n,sum=0,c=0;  printf("How many odd numbers ?\n");  scanf("%d",&n);  for(i=1;;i+=2)  {  if(c==n)  {  break;  }  else{  if(i%2!=0)  {  sum=sum+i;  c++;  }  }  }  printf("summation of first %d numbers = %d\n",n,sum);  return 0;  } |