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| **Call by value:**  #include <stdio.h>  // function declaration  void add10(int);  int main(void)  {    // integer variable  int num = 10;    // print value of num  printf("Value of num before function call: %d\n", num);    // pass by value  add10(num);    // print value of num  printf("Value of num after function call: %d\n", num);    return 0;  }  // function definition  void add10(int n)  {  n = n + 10;  printf("Inside add10(): Value %d\n", n);  }  Output:  Value of num before function call: 10  Inside add10(): Value 20  Value of num after function call: 10 |
| #include <stdio.h>  int main()  {  int\* pc, c;  c = 22;  printf("Address of c: %p\n", &c);  printf("Value of c: %d\n\n", c);  pc = &c;  printf("Address of pointer pc: %p\n", pc);  printf("Content of pointer pc: %d\n\n", \*pc);  c = 11;  printf("Address of pointer pc: %p\n", pc);  printf("Content of pointer pc: %d\n\n", \*pc);  \*pc = 2;  printf("Address of c: %p\n", &c);  printf("Value of c: %d\n\n", c);  return 0;  } |
| **Call by reference:**  #include <stdio.h>  // function declaration  void add10(int \*);  int main(void) {    // integer variable  int num = 10;    // print value of num  printf("Value of num before function call: %d\n", num);    // pass by reference  add10(&num);    // print value of num  printf("Value of num after function call: %d\n", num);    return 0;  }  // function definition  void add10(int \*n) {  \*n = \*n + 10;  printf("Inside add10(): Value %d\n", \*n);  }  Output:  Value of num before function call: 10  Inside add10(): Value 20  Value of num after function call: 20 |

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| **Addition of two numbers using pointers**  #include <stdio.h>  int add(int \*, int \*);  int main()  {  int first, second, \*p, \*q, sum;  printf("Input two integers to add\n");  scanf("%d%d", &first, &second);  sum = add(&first, &second);  printf("(%d) + (%d) = (%d)\n", first, second, sum);  return 0;  }  int add(int \*x, int \*y)  {  int sum;  sum = \*x + \*y;  return sum;  } |
| **C Program to Compute sum of the array elements using pointers!**  #include<stdio.h>  #include<conio.h>  void read(int numArray[10]);  void sum(int numArray[10]);  void main()  {  int numArray[10];  int i;  int \*ptr;  read(numArray);  sum(numArray);  }  void read(int numArray[10])  {  int i;  printf("\nEnter 10 elements : ");  for (i = 0; i < 10; i++)  scanf("%d", &numArray[i]);  }  void sum(int numArray[10])  {  int \*ptr,i;  int sum=0;  ptr=numArray; /\* a=&a[0] \*/  for (i = 0; i < 10; i++)  {  sum=sum+\*ptr;  ptr++;  }  printf("The sum of array elements : %d", sum);  } |
| **/\*C program to swap two numbers using pointers.\*/**  #include <stdio.h>  // function : swap two numbers using pointers  void swap(int \*a,int \*b)  {  int t;  t = \*a;  \*a = \*b;  \*b = t;  }  int main()  {  int num1,num2;  printf("Enter value of num1: ");  scanf("%d",&num1);  printf("Enter value of num2: ");  scanf("%d",&num2);  //print values before swapping  printf("Before Swapping: num1=%d, num2=%d\n",num1,num2);  //call function by passing addresses of num1 and num2  swap(&num1,&num2);  //print values after swapping  printf("After Swapping: num1=%d, num2=%d\n",num1,num2);  return 0;  }  Enter value of num1: 10  Enter value of num2: 20  Before Swapping: num1=10, num2=20  After Swapping: num1=20, num2=10 |
| #include<stdio.h>  #include<string.h>  void count(char \*str);  void read(char \*str);  int main()  {  char str[100];  read(str);  count(str);  return 0;  }  void read(char \*str)  {  printf("Enter a string: ");  gets(str);  }  void count(char \*str)  {  char \*ptr;  ptr=str;  int cntV,cntC;  cntV=cntC=0;  while(\*ptr!='\0')  {  if(\*ptr=='A' ||\*ptr=='E' ||\*ptr=='I' ||\*ptr=='O' ||\*ptr=='U' ||\*ptr=='a' ||\*ptr=='e' ||\*ptr=='i' ||\*ptr=='o' ||\*ptr=='u')  cntV++;  else  cntC++;  //increase the pointer, to point next character  ptr++;  }  printf("Total number of VOWELS: %d, CONSONANT: %d\n",cntV,cntC);  } |