Switch and Condition

| #include<stdio.h> main( ) { float a,b,m;  printf("Two numbers");  scanf("%f %f",&a,&b);  if (a>b) m=a; else m=b;  printf("%f bigger",m);  }   * Bigger of two numbers * Write program, which reads three numbers and print the biggest. * Write program, which reads four numbers and print the biggest. | #include<stdio.h> //**ax2+bx+c=0;**  #include<math.h>  main( ) { float a,b,c,det,r1,r2;  printf("\nGive a b c");  scanf("%f %f %f",&a,&b,&c);  det=b\*b−4\*a\*c;  if(det<0) printf("Imaginary");  else  { r1=(−b+sqrt(det))/(2\*a);  r2=(−b−sqrt(det))/(2\*a);  printf("roots %f %f",r1,r2);  }  }  input 1,5,6-2,-3 i/p2,3,4im |
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| #include<stdio.h>  main( )  {  int x,y,z;  printf(“give x”);  scanf(“%d”,&x);  switch(x)  { case 12: y=x+10; break;  case 7: z=x\*x; y=z+6;  break;  default: y=2\*x; break;  }  printf(“%d \n”,y);  }  1222 1326 , 755 Remove first break on i/p 12 o/p is 150 | |

1. Write program, which reads 2 numbers and prints both of them. The bigger number is printed first.
2. Write program, which reads a, b and c. Let ax2 + bx + c = 0 be a quadratic equation. If roots are real and distinct then both roots are printed. If roots are equal then only one root is printed. If roots are imaginary then real part and complex parts of both roots are printed.
3. Modify above program to print roots. e.g. for above input output −4+3i and −4−3i.
4. Write program, which reads a, b and c as sides of a triangle and prints whether angle A is 900 or not.

[Hint: if (a2 = = b2+c2) ] [Do not use cos−1 etc]

1. Write program, which reads a, b, and c. Let ax + by + c = 0 be equation of a line. Print its slope. The program also prints whether the line is vertical or not.
2. Write program, which reads three numbers. Two of these are same and one of them is different. The program outputs the different number. e.g. input 5 5 2 output 2. Input 4 3 4 output 3. Input 5 2 2 output 5.
3. Write program, which reads 5 numbers a, b, c, d, and x. Here a, b, c, and d are distinct and x is equal to exactly one of a or b or c or d. The program output which is equal to x. e.g. input 5 7 9 6 7 output x is equal to b. input 8 7 1 3 1 output x is equal to c.
4. Write program, which reads 5 numbers a, b, c, d, and x. The program output how many among a, b, c and d are equal to x. e.g. input 5 7 9 7 7 output 2. input 5 3 8 7 2 output 0. input 5 2 2 2 5 output 1.
5. Write program, which reads three numbers. The program outputs the middle of these. 5,2,44. 5,6,25.



1. Read p, q, r, a, b, c. Let ax+by+c=0 be a line. Let (p,q) be the center of a circle and r be its radius. The program finds whether the circle and the line intersect or not. If they intersect let A and B be the points of intersection of the circle and the line. Find the area of the triangle formed by A, B and the center of the circle. [Hint: Find the distance of the line from the center. If it is more than the radius then circle and the line do not intersect. Otherwise find the chord length AB]. Input 5 4 10 1 1 2 “no intersection”. Input 7 4 13 3 4 2360.



1. Write program, which reads an integer X and prints an integer Y. Y is X+10 if X is between 10 and 30. Y is 3\*X if X is between 50 and 70. Otherwise Y is X-2.
2. A student is awarded Ex grade if he gets more than 90 marks. He is awarded A grade if marks are between 80 and 89. Similarly range for B, C, D and P are 70-79, 60-69, 50-59, and 35-49 respectively. The student is awarded F grade if he gets less then 35 marks. Program reads marks of a student and prints his grade.
3. No income tax is to be paid if income is less than 5000. If income is between 5000 and 6000 then tax is 10% of the amount by which the income exceeds 5000. If income is between 6000 and 15000 then the tax is 100 + 20% of the amount by which the income exceeds 6000. If income is more than 15000 then the tax is 1900 + 30% of the amount by which the income exceeds 15000. e.g. if income is 10000 then the tax will be 100 + (10000-6000)\*20/100 = 900. Write a program, which reads income and calculates the income tax.
4. Write a program, which reads a number X and prints a number Y. Y=X+10 if X is 6. Y is X\*X if X is 7. Y is 2\*X+4 if X is 12. Otherwise Y is X\*6-1. (use switch)
5. Write a program, which reads three integers X, Y and Z and prints Y+Z if X is 0. If X is 1 then Y-Z is printed. If X is 2 then Y\*Z is printed. If X is 3 then Y/Z is printed. (use switch)