PROGRAM-1 a) Develop a Java program that prints all real solutions to the quadratic equation ax2 + bx + c = 0. Read in a, b, c and use the quadratic formula. If the discrimin ate b'- 4ac is negative, display a message stating that there are no real soutions. 1) import java util scanner; class quadratic (public static void main (string [] aug X Scanner scanner = new Scanner (system.in system.out. println ("Enter the coefficients of the quadratic equation (ax+ bx +c=0):"); System . out- print ("Enter a: "); double a = scanner. next Double (); System. out. print(" Enter 6: "); double b = scanner. next Double (); System. out. print ("Enter (: "); double c= scanner. next Double (); double discriminant = (6 * 6) (4 * a * c);

Date______ if (a==0) { system. out-mint (" Not a guadratic equation"); elec (months acube discriminant = (6 % b) - (4 x a x c) uy (discriminant >0) { double root = (-b+ math sqrt (discriminant)) (2 * a): double root 2 = (-b - math. sqrt (discininant))/(2xa); system out minth 1" The roots are real and different "> system out private ("ROST 1:" + root 1) jours System. out. println ("Root 2!" and different resigned attroots) just Francisco y else if (discriminant = 0) [ROOT 21 -67 - 1-144552314225959 double root = -b/ (240): system. out. minth ("The roots see seal and equal"); (=) System out, minth ("Root)? + root); 3 else L 3 d reme "6) double realpart: -b/ (2xa); double imaginary Part : Math- 1997t (- discerninant) / (2x a);

Date_____ Eyrem, out printer (" the roots are complex and different"); System out println ("Root 1:" + real Part + "+"+imaginary Part + "i") System. but printly ("ROOT 2: " + realPart + "-" + imaginary Part + "i" 4 (of distributions) AN scanner. dose (); super tour? (-b+ front walled (dievinione)) [(2+4) demole rooten (-b - malk. sare Collementaret Dif Com a Enter the coefficients of the * quadratic equation (ax2 + bx + c= 0): Enter a; 5 Enter b : 7 Enter to : que money The roots are complex and different ROOT 1: -0.7 + 1.1445523142259597i Root 2: -0.7 - 1.1445523142259597à n * s) (d = = 500 g siduals Enter the coefficient of the guadratic equation (0212 + 62+C=0): Enter a: 0 enter b: 5. July Enter C! 9 Not a quadratic equation diecetininant 3 / (2x