1. Create a script with if, else if, and else conditionals to calculate the Total Resistance (R\_T)

1) r1 , r2, and r3 are connected in series manner. (R\_T= r1+r2+r3)

2) r1, r2, and r3 are connected in parallel manner.(R\_T = 1/((1/r1)+(1/r2)+(1/r3)) )

3) r1 is connected to the parallelly connected r2 and r3 in series manner.

(R\_T = r1 + r2xr3/(r2+r3) )

The output should be

The Total Resistance is [your result] ohms since r1, r2, r3 are connected in [series, parallel, combination] manner. r1 = 10 Ω, r2 = 20 Ω, and r3 = 30 Ω.

2. Repeat problem 1. This time use “switch”.

3. Create a script that will add all integers between 1 (initial) and 100 (final). Also, create another script that will do the same operation,bBut this time use decrement operator so can have 100 for the initial integer and 1 for the final integer.

4. Let’s create our own quadratic equation solver.

a) First, try using loop with changing numbers x from 0 to 10. (This is just the completion of the work that we tried in class.) (I.E: Create script with loops that will find values of x’s that will satisfy the equality ax^2+bx+c=0) Try with a = 1, b=-4, and c =3 and a =1, b=-4 and c = 4. (Let’s stick to integer roots)

1. Second, we can try [–b (+/-) sqrt(b^2-4ac)] / (2a), but this requires a lot of conditions (please pardon the pun.), since we can have three different forms of outcome.

float a, b, c;

float REAL1, IMAG1, IMAG2;

a=1.0; b=4.0; c= 3.0;

// a=1.0; b=4.0; c= 5.0 ;// a=1.0; b=4.0; c= 4.0 (Try with these 3 sets of a, b, c)

REAL1=-b/2;

IMAG1=b\*b-4\*a\*c;

IMAG2=4\*a\*c-b\*b; 