**PSUEDOCODE FOR DERIVING THE ROOTS OF A QUADRATIC EQUATION**

1. Input the values of a, b, c and d.
2. Divide through by the coefficient of ax3 in the formula:

ax3 + bx2 + cx + d = 0.

1. Let A1 = b/a

Let A2 = c/a

Let A3 = d/a

1. Input the corresponding values into the following equations

Q = (3a2 – a12) / 9

R = (9a1a2 – 27a3 – 2a13) / 54

S = (R + (Q3 + R2)1/2)1/3

T = (R - (Q3 + R2)1/2)1/3

1. Find the values of the roots (x1, x2 and x3) with the following equations:

X1 = S + T – 1/3 \* a1

X2 = -1/2(S + T) – (1/3\*a1) + ((1/2\*i)((3)1/2)(S – T))

X3 = -1/2(S + T) – (1/3\*a1) - ((1/2\*i)((3)1/2)(S – T))