Applicability(App) Function:

The purpose of this function is to determine how applicable a heuristic is when applying it to Crypto problems. This function returns the probability of the heuristic applicability. A hundred random single digit crypto problems are generated to determine the applicability of the nine heuristics.

Using the App function:

H1. if sameP(A,B) ^ zeroP(C,D,E)^ oneP(G) then ((A/B) + zeroX(C,D,E))

Applicability = 1/100 = .01

H2. if sameP(A,B) and goalP(C,D,E) then ((A-B) + goalX(C,D,E))

Applicability = 16/100 = 0.16

H3. if zeroP(A) and goalP(B) and numbers P(C,D,E) then (B + (A * (C * (D * E))))

Applicability = 12/100 = 0.12

H4. if sameP(A,B) and goalP(C) and numbersP(D,E) then (C+ ((A – B) * (D * E)))

Applicability = 9/100 = 0.09

H5. if oneP(A) and zeroP(B,C,D) and onemoreP(E,G) then ((E- A) + zeroX(C,D,B))

Applicability = 10/100 = 0.1

H6. if oneP(A) and oneP(B) and zeroP(C,D) and twomoreP(E,G) then ((E – (A + B)) + zeroX(C,D))

Applicability = 0/100 = 0

H7. if sameP(A,B) and sameP(C,D) and twomoreP(E, G) then (E – ((A/B) + (C/D)))

Applicability = 0/100 = 0

H8. if twoP(A.B) and zeroP(C,D) and twomoreP(E,G) then ((E – twoX(A,B)) + zeroX(C,D))

Applicability = 6/100 = 0.06

H9. if sameP(A,B,C,D,E,G) then (A + ((B – C) + (D -E)))

Applicability = 0/100 = 0