Hexecutability(Hex) Function

The purpose of this function is to determined how hard or easy it is for a human to apply a given heuristic to a Crypto problem. This function maps each heuristic onto a number between 0 and 1. The closer to "0" the harder it is for a human to apply the heuristic to a Crypto and the closer to "1" the easiest it is for a human to apply the heuristic to a Crypto. To determine the hexecutability the function starts at 1 and subtracts some "Then" values.

If/Then

if sameP(A,B) then substract 0.08

if zeroP(C,D,E) or zeroP(A,B) then substract 0.03

if goalP(C,D,E) then substract 0.2

if goalP(B) or oneP(G) or zeroP(A) then substract 0.04

if onemoreP(E,G) then substract 0.09

if twomoreP(E,G) then substract 0.05

if twoP(A,B) then substract 0.1

if sameP(A,B,C,D,E,G) then substract 0.02

Using Hex Function

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

Hexecutability = 1 - .08 – 0.03 – 0.03 = 0.86

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

Hexecutability = 1 - .08 - 0.2 = .72

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

Hexecutability = 1 - .03 – 0.02 = .95

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

Hexecutability = 1 - .08 - 0.04 = .88

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

Hexecutability = 1 – 0.04 - .03 - .09 = .84

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

Hexecutability = 1 - .08 - .08 - .03 - .05 = .76

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

Hexecutability = 1 - .08 - .08 - .05 = .79

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

Hexecutability = 1 – 0.1 - .03 - .05 = .82

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

Hexecutability = 1 - .02 = .98