Using the Three New Predicates

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Heuristic 1:

If oneLess(self(A,B),G) and oneP(C,D,E) then ((self(A,B)) + (one(C,D,E)).

EX:

1. 8 1 7 4 3 G = 9   ((8 * 1) + (7 / (4 + 3)))
2. 4 0 9 2 7 G = 5   ((4 + 0) + (9 / (2 + 7)))
3. 6 1 4 2 1 G = 7   ((6 * 1) + (4 − (2 − 1)))

Hex:

1 − [5] .1 − [8] .1 − [10] .2 − [12] .3 =

.3

App:

self(1/10 * 2/10) + oneLess(1/50) + oneFromThree(1/20) = 2/100 + 2/100 + 5/100 =

.09

Heuristic 2:

If half(A,G) and twoP(B,C,D,E) then (A * (two(B,C,D,E)).

EX:

1. 2 7 4 6 5 G = 4   (2 * ((7 − 6) + (5-4)))
2. 3 2 9 4 7 G = 6   (3 * (((9+7)/4)/2))
3. 4 7 8 4 9 G = 8   (4 * (((8 + 7) − 9) − 4))

Hex:

1 − [5] .1 − [8] .1 − [12] .3 − [10].2 =

.3

App:

half(1/120) * twoFromFour(4/5) =

.0064

Heuristic 3:

If goalP(A) and self(A,B) and zeroP(C,D,E) then (self(A,B)) + (zero(C,D,E)).

EX:

1. 2 1 8 7 1 G = 2   ((2 * 1) + ((8-7)-1))
2. 6 0 9 9 1 G = 6   ((6 + 0) + ((9 − 9) * 1))
3. 4 1 9 3 6 G = 4   ((4 * 1) + ((9 − 6) − 2))

Hex:

1 − [5] .1 − [7] .04 − [10] .2 − [12].3 =

.36

App:

goalP(1/10) + self(1/10 * 2/10) + zeroP3(1/20) = 10/100 + 2/100 + 5/100 =

.17