

## **Crypto: Heuristic Problem Solving Task #4**

Applicability values for each heuristic:

I have determined these scores via a rough estimation, these were not empirically determined.

### **H1:**

Goal has 1/15 chance to be 1  $\rightarrow$  0.07% chance

Combined with 2 other predicates (a pair & a zero), which drives the percentage down lower

**App rating: 0.02**

### **H2:**

Definitely higher than H1 by a large margin. Only 2 predicates needed instead of 3, and they are “easier” predicates.

**App rating: 0.08**

### **H3:**

Seems like it should be easier than H1, but harder than H2. Only 2 real predicates....

**App rating: 0.05**

### **H4:**

Seems to have harder predicates than H3, but easier than H1...

**App rating: 0.03**

### **H5:**

2 relatively easy predicates and 1 medium predicate....

**App rating: 0.05**

**H6:**

This one has 4 different predicates, which makes for a very specific scenario. Definitely seems like it will be a low score.

**App rating: 0.02**

**H7:**

Two of the same pairs are required as well as a number which is 2 more than the goal. Definitely not an “easy” heuristic in terms of applicability.

**App rating: 0.025**

**H8:**

This one doesn't seem horrible. A 0, 2, and a number which is two more than the goal are needed. 3 predicates, 2 being easy, 1 being medium.

**App rating: 0.05**

**H9:**

This is definitely a rare one. Every number would have to be the same, which is not common in the slightest.

**App rating: 0.002**