Dyphantine equations

Logic equation 9x9

Find distinct values for the variables ranging from 1 to 9 to make all statements true. (puzzle taken from Brainzilla - www.brainzilla.com)

$$4 * F = E \qquad (1)$$

$$I = G * H \qquad (2)$$

$$C + E \neq 12 \rightarrow G = D + E + 2 \qquad (3)$$

$$B = A + H \qquad (4)$$

$$A + G \neq C \qquad (5)$$

```
set(arithmetic).
assign(max_models,-1).
assign(domain_size,10).

list(distinct).
  [0,A,B,C,D,E,F,G,H,I].
end_of_list.

formulas(assumptions).
  4 * F = E.
  I = G * H.
  C + E != 12 -> G = D + E + 2.
  B = A + H.
  A + G != C.
end_of_list.
```