```
   Messaging: 2 * m_i
   Arithmetic at H due to L_i: 2 * a_H

Prefer option (a) when (n_i * m_i) + (a_H * n_i) <
                       (2   * m_i) + (a_L * (n_i - 1)) + (2 * a_H)

EXTRA 1: Very similar to original except replace:
  (a_H * n_i) with (a_H * (n_i - 1))
  (2 * m_i) with m_i
  (2 * a_H) with a_H

EXTRA 2: Except for certain extreme cases, all values must be
transmitted to a single site in order to compute a median, so only
option (a) is feasible.
```