1. A Goldschmidt gap is a simple gap \( G \) whose 2-fusion system is soluble; i.e. if \( S \in \text{GSp}(G) \), then \( J \) a nontrivial abelian rep. of \( S \) strongly closed in \( S \) with respect to \( G \).

Bender gaps (gaps of the rank 1 over a field of char \( 2^e \): \( L_2(q) \), \( S_3(q) \), \( U_3(q) \), q even).

Groups with abelian Sylow 2-groups: \( L_2(q) \), \( q \equiv \pm 3 \mod 8, 2^G_2(q), J_1 \).

2. Let \( H \) be the set of known simple groups.

Let \( \text{Heo} \) denote the members of \( H \) which are not Goldschmidt gaps and
not in \( \text{Chev}^*(p) \), \( p \) odd.

3. Define \( \text{Hint} \) ("int" = intrinsic) for those quasisimple gaps \( K \) s.t. \( Z(K) \neq 1 \)
is a 2-gap, and \( K/2K \in \text{Heo} \) and \( K \neq S_2(q), A_7 \).

4. Define \( \hat{\text{Heo}} = \text{Heo} \cup \text{Hint} \).

5. Tentative setup: \( E \) a saturated f.s. on a 2-gap \( S \) s.t., for \( C \subseteq C \),
\( C \) is the 2-fusion system of some \( T(C) \in \text{Heo} \). (Other components caused by
Suzuki's theorem and the classical inaction theorem.)

6. Partition the problem into several modules.

7. Define \( C \in C \) to be intrinsic if there \( E \in 2(E) \cap T(E) \).

Note \( \text{Hint} \) consists of the gaps \( \hat{A}_n \) plus a finite number of examples
\( K \) with \( K/2K \in \text{Chev}(2) \) sporadic.

8. Define \( C \in C \) to be subintrinsic if \( E \in T(E) \cap 2(E) \).

9. If \( C \in C \) and \( 2(E) \neq 1 \) then there ex., a comp. in \( C \) that is intrinsic
in \( E \).

10. If \( C \in C \) and \( E \) an intrinsic member of \( C(E) \) then \( E \) an intrinsic
    member of \( F \).

    \( E \in \text{subintrinsic member of } C \) then \( E \) a subintrinsic maximal in \( C \).
(12) First module in the partition:
   Determine all \( F \) with a sub intrinsic member of \( C \).

(13) Next setup: \( \text{Let } H_{2c} = K_{2c} \setminus K_{si} \text{ where } K_{si} = \text{sub intrinsic } K's. \)

Note: All members of \( H_{2c} \) are simple.

Assume:
(1) Each member of \( C \) is the 2-fusion system of some member of \( H_{2c} \).
(2) If some involution \( t \in F \) s.t. \( E(C_{2}(t)) \neq 1 \) and \( m_{2}(C_{2}(to)) = m_{2}(S) \).

(14) If \( F \) is a restricted 2-fusion system on \( S \) and \( C \) is a component of \( F \)
in \( H_{2c} \) then \( F(S) \) acts on \( C \).

(15) For \( C \in \mathcal{C} \) let \( F(C) = \{ j \in F(C) : m_{2}(C_{2}(j)) = m_{2}(S) \} \)

\( C_{j} = \{ C \in \mathcal{C} : F(C) \neq \emptyset \} \)

\( C \in C_{j} \) is maximal in \( C_{j} \) if \( \text{to } G(C) \) and \( E_{4} \cong \langle t_{1}, t_{2} \rangle \in E(C) \)
and \( m_{2}(C_{2}(< t_{1}, t_{2} ))) = m_{2}(S) \), then \( 1.2.2 \) does not occur.

Note: If \( C \) is maximal then by (14), \( C \) is a comp. of \( C_{j}(S) \).