```
ValidKnots@0 := {MD[]};
ValidKnots@n_Integer := ValidKnots@n =
    (Select[Join @@ Table[
        MD @@ (c List @@ #) & /@ CandidateKnots@n,
        {c, Tuples[{1, -1}, n][[ ;; 2^(n-1) ]]}],
      ¬ PassReducible@# ∧ Minimal@# == # &]
     // KnotSort);
```