\*.geo notes:

There are many factors affecting the design of the house due to lots of odd shapes.

* Have three zones max: BASE, MAIN, ATTIC
* Check the parameters: basement(15), flat roof type (18), sloped roof type (21), storeys (13)
* If basement|crawl, then build it first
  + If (FA4/(FA1 or FA2)<1.25 then assume equal sizing: build square based on side lengthe = SQRT( FA4)
  + Else (base is smaller then main) build rectangular BASE based on FA1 or FA2 and long side (along 0,Y axis) = SQRT(FA4). Short side = FA1 or FA2 / SQRT(FA4). This way only end up with two extra vertex points in MAIN.
    - Remember extra two vertex points for MAIN
  + No extra vertices for windows in basement
* MAIN
  + Use SQRT(FA4), add extra base vertices if small basement
  + If FA4/FA5>1.25