

**[ 1 ] Exercise 1 — Problem Types**  
**a study of logic and knowledge-based design**

*Hand-out:* Monday 28 August  
*Due:* Wed. 30 August at class time

*Modality:* teams of two people  
*Grading:* 0% of course grade

**Part 1: Three Problem Types**

Assignment: solve the following 3 problems:

1. What is the value of X in this equation?  
 $\frac{3}{4} X^2 - 5 = 7$
2. As exactly as possible, describe your present feelings with one word **or** one image.
3. In a square background, use 3 triangles to define at least 1 negative triangle.

Presentation Format: 8.5"x11" sheet(s)

Media: free hand writing/sketching (or printed image as necessary)

**Part 2: Typical House**

Assignment: forgetting all you learned in school, design a 4 bedrooms/2 car-garage typical suburban house for a typical suburban flat lot outside Washington DC. Don't spend more than 20 minute doing this job.

Presentation Format: produce plans and main elevation. Format: 11x17 sheet(s)

Media: you may use analog or digital media, whatever is more economical in time and effort

**Part 3: Typological House**

Assignment: using all you learned in school, design a 4 bedrooms/2 car-garage villa for a very large flat lot using (a) "L", (b) 4 square, (c) central plan/central courtyard, or (d) linear typology (to be assigned by chance). Don't spend more than 20 minutes doing this job.

Presentation Format: produce plans and best axonometric. Format: 11x17 sheet(s)

Media: you may use analog or digital media, whatever is better to conceptually explicate your design

**Part 4: Reflection**

Spend 20 minutes reflecting/discussing with your partner on the commonalities and differences between the work you have done in this 3-part assignment. Take notes and come prepared to discuss them in class.