12 Problems for guided self-study

1. Find how the materials data is organized within the Architecture Edition. (Subsets)

2. What types of concrete are included in the database? (Browse)

3. What is Portland cement and why is it called Portland? (Datasheet)

4. If the annual world production of steel (around 10^9 tonnes) were to make up a Hot Rolled Steel I-section (Joist (89x89x19.7), How long would it be? (Case study, Structural sections)

5. Reproduce the property chart at the first page of the case study paper. How many times more expensive would a copper cladding be than galvanized steel? (assume same thickness)

6. Which are the 7 types of structural sections in the data-table? Note: These may be named differently from the image in the case study paper (structural sections)

7. Recreate the Steel Structures chart from the Case Study. Which structure is best for an application where weight minimization, while still maintaining a relatively high bending stiffness, is key?

8. Plot the bending stiffness for Al sections divided into section types (use the advanced > tree option when defining the X-axis by inserting every type) Which section has the highest bending stiffness? (EduPack)

9. Try to reproduce the Eco Audit based on the BOM from the house in the case study. Put in any realistic transports. (EduPack).

10. Adjust the BOM within the Eco Audit to include two additional recycled or reused parts. How does this impact the Energy and CO_s output charts? (EduPack)

11. Compare the summary chart of Energy Use in Latin America and North America found in the Case Study. Explain the differences in energy use between the two given the static energy use being equal.

12. Compare the energy usage of the house in Latin America to England. What changes and why might this occur? (EduPack)