**Volume Project: Backyard Landscaping (Green)**

You have been hired by your aunt to landscape her backyard. You have been given a budget of **$2,000.**

You will **be paid** **any money that is left over** once everything has been paid for.

You need to do the following tasks, and keep track of how much money you spend to do them.

1. Dig a hole for **an in-ground pool** (cylindrical prism)
   * Must be at least 4 feet deep.
   * remove the dirt, then fill pool with water
   * **Minimum pool volume = 400 ft3 water**
2. Build an **above-ground garden** (Rectangular prism)
   * Must be at least 2 feet tall.
   * fill with dirt
   * **Minimum volume = 100 ft3 dirt**
3. Build **three different shaped planters** for flower beds,
   * All 3 planters MUST be different shape (cylinder, triangular prism, and rectangular prism)
   * Must be at least 2 feet tall
   * fill with dirt
   * **Minimum combined volume = 100 ft3 dirt**

Draw out your plan for the backyard, as well as a picture for each item you must calculate the volume for.

Show all calculations for volume, and prices.

**PRICES:**

* Dirt removal - $2.50 per ft3
* Dirt addition - $2.50 per ft3 to bring in **new dirt** (**no cost** if you use dirt removed for the pool)
* Water - $0.50 per ft3