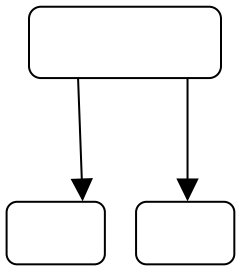


1. Write a program contains the following:

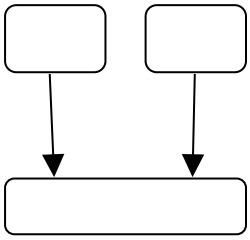
i. Class **Polygon** that has:
   a. A variable **Length as float**.
   b. A **constructor** function**.**

ii. Class **Triangle** which is a subclass from class **Polygon** that has:
   a. A variable **Height as float.**
   b. A **constructor** function.
   c. Function **area_t()** that returns the area of triangle.

iii. Class **Rectangle** which is a subclass from class **Polygon** that has:
   a. A variable **Width** as float**.**
   b. A **constructor** function.
   c. Function **area_r()** that returns the area of rectangle.

---

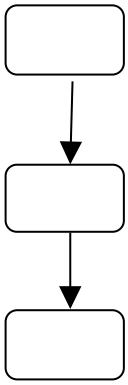
2. Write a program contains the following:



i. Class **X _axis** that has:
   a. A variable **x as float**.
   b. A **constructor** function**.**

ii. Class **Y _axis** that has:
   a. A variable **y as float.**
   b. A **constructor** function.

iii. Class **Point_3d** which is a subclass from **X -axis** class and **Y _axis** class that has:
   a. A variable **z as float.**
   b. A **constructor** function.
   c. Function **norm ()** that returns the distance between the point and (0, 0, 0).
   d. Friend function **distance ()** that returns the distance between two points**.**



3. Write a program contains the following:

i. Class **Shape** that has:
   a. A variable **Length as double.**
   b. A **constructor** function.

ii. Class **Rectangle** which is a subclass from class **Shape** that has:
   a. A variable **Width as double.**
   b. A **constructor** function.
   c. Function **area ()** that returns the area of rectangle.

iii. Class **Parallelogram** which is a subclass from class **Rectangle** that has:
   a. A variable **Height as double**.
   b. A **constructor** function.
   c. Function **volume ()** that returns the volume of parallelogram.