SECTION 8: OBJECT ORIENTED PROGRAMMING, 1 hour 21 minutes, 9 parts

- **7/9 Object Oriented Programming - Homework Solutions**
  - **-> defining the line class**
    - **def __init__(self, coor1,coor2): <- first the classes begin with def __init__(self,...) then below them the functions (methods) for that class is defined**
      - self.coor1=coor1
      - self.coor2=coor2
    - def distance(self):
      - return() <- types out Pythagoras
    - **def slope(self):**
      - then types out the equation for the slope of a line
        - **-> x1,y1=self.coor1 (this syntax)**
    - then myline = Line(c1,c2) -> **then she's creating different instances of the class to test the code**
    - -> she's tested that the method works on two coordinates

  - **-> then with the cylinder class**
    - **defined the __init__(self,...): <- part and then below it the attributes**
      - **self.height = height**
    - **def volume(self):**
      - **return self.height *...**
    - **-> the entire thought process behind defining a class is -> initialise it (tell it the different 'variables' which we are dealing with, and then then the methods (functions) which belong to that class**
    - -> she defines the different methods for the class then creates instances of it
    - **-> to create instances variable_name = Class_name(arguments)**
      - **then you can variable_name.method() or variable_name.attribute to return information about that instance of the class**