

The Challenge Round

Filename: vectors

You need to calculate the trajectories of multiple colliding objects, but before you can do that, you need to be able to represent the objects' positions.

The Problem:

Create a `vector3` class that takes three inputs in the constructor: ``x``, ``y``, and ``z``. The vectors need to have four methods: ``add``, ``subtract``, ``dot``, and ``cross`` that take a second `vector3` and return the result of the operation. Printing a `vector3` should display as `“(x, y, z)”`.

The Input:

Two `vector3`'s will be instantiated, and each mathematical operation will be performed.

The Output:

New `vector3` results of the mathematical operations. They should display in the correct format (hint: [dunder or magic methods in python](#))

Sample Input:

```
vector_a = vector3(5, 7, 4)
vector_b = vector3(2, 4, 8)
print(vector_a.add(vector_b))
print(vector_a.subtract(vector_b))
print(vector_a.dot(vector_b))
print(vector_a.cross(vector_b))
```

Sample Output:

```
(7, 11, 12)
(3, 3, -4)
70
(40, -32, 6)
```