previous up next

## Tartalomjegyzék

- 1 Lecture
- 2 Exercises
  - 2.1 Complex
- 3 In Cloudcoder

# Lecture

See the OOP I. lecture

# Exercises

## Complex

You have to add methods to the Complex class from the lecture:

```
class Complex(object):
    def __init__(self, real, imaginary):
        self.re = real
        self.im = imaginary

    def __add__(self, z2):
        new_re = self.re + z2.re
        new_im = self.im + z2.im
        return Complex(new_re, new_im)

    # used by print
    def __repr__(self):
        return str(self.re) + " + " + str(self.im) + "i"

z1 = Complex(4, 3)
z2 = Complex(-2, 1)
z3 = z1 + z2

print z3
```

- Implement the subtraction, multiplication and division methods (__sub__, __mul__, __div__).
- Also implement the `norm` method which returns the length of the complex number.
- Improve the __repr__ method to handle numbers like this for example:

```
2 - 4i
5i
2
```

For testing use this (or you can use other tests):

```
k1 = Complex(4, 3)
k2 = Complex(-2, 1)
k3 = Complex(4, 1)

print k1 + k2
print k1 - k3
print k2 * k1
print k3 / k1
print k1.norm()
```

# In Cloudcoder

1. reservation_1
2. reservation_2
3. reservation_3
4. reservation_4
5. reservation_5
6. whowins

previous up next