p5q5 (1)
MR
p12q6

(1) Comparative P.L's: 2000

```
class complex {
    double re, im;
public:
    complex(double r, double i) { re = r; im = i; }
    complex(double r) { re = r; im = 0; }

    friend complex operator+(complex, complex);
                - (complex, complex);
                - (complex);
};
```

Constructors

Dyadic

Monadic

etc.

```
def * +
complex operator+(complex a1, complex a2) {
    return complex(a1.re + a2.re, a1.im + a2.im);
}
```

Typical use

```
complex a = 2.3;
complex b = 1/a;
complex c = a + b * complex(1, 2.3);
c = -(a/b) + 2;
```

No need for destructors.

class complex could be implemented as
a pair of doubles.

Assignment would just copy the pair

```
a = b;
```

The constructor could be inlined,
and so could the infixed operators.

There is a potential danger if a subclass of
complex were ever defined. - - -