

MAT 1302 - COMPLEX NUMBER EXERCISES
PROF: ALISTAIR SAVAGE

1. Is $-2/3$ a complex number?

2. Suppose

$$z = 4 - 2i, \quad w = -2 + 3i.$$

Compute the following:

- (a) \bar{z}, \bar{w}
- (b) $|z|, |w|$
- (c) $1/z, 1/w$
- (d) $z + w$
- (e) zw
- (f) z/w
- (g) w/z

3. Write

$$\frac{1 - 2i}{-3 + 5i}$$

in the form $a + bi$.

4. Write

$$\frac{2 + i}{1 - 3i}$$

in the form $a + bi$.