

**Quiz**

1. Find real numbers  $a$  and  $b$  satisfying the property that  $(a + bi)^2 = i$ .
2. Sketch a picture representing the set of values of the complex variable  $z$  for which  $|z - i| \leq 1$ .
3. If  $z$  is an element of the complex numbers satisfying the property that  $|\operatorname{Re}(z)| = |z|$ , then what can you deduce about  $z$ ?