

## Math 424

### Homework 11

1. Find the linear fractional transformation mapping the points  $-1, i, 1 + i$  onto the points

a)  $0, 1, \infty$

b)  $2, 3, 4$

2. Find the points symmetric to the point  $3 + 4i$  with respect to the circles.

a)  $|z| = 1$

b)  $|z - i| = 2$

3. Find the conformal mapping of the infinite strip  $|\operatorname{Im} z| < \frac{\pi}{2}$ , onto the unit disk

4. Find the conformal mapping of the unit disk onto the infinite strip  $|\operatorname{Re} z| < 1$ . Hint: Use result of problem 3.