

Exercise 6

Using the fact that $|z_1 - z_2|$ is the distance between two points z_1 and z_2 , give a geometric argument that

- (a) $|z - 4i| + |z + 4i| = 10$ represents an ellipse whose foci are $(0, \pm 4)$;
- (b) $|z - 1| = |z + i|$ represents the line through the origin whose slope is -1 .