

Quiz 2

1. Find the disk of convergence for the series

$$\sum_{n=0}^{\infty} \frac{(z - 2 + i)^n}{2^n}.$$

Draw this disk in the complex z -plane. Indicate its center with a dot and its radius on the drawing.

2. Find

$$2^i$$

in the form $x + iy$. No need to use a calculator. You can leave your answer with trigonometric and logarithm functions unevaluated.