

Regions

How would you describe each of the following in words? Therefore draw each of the regions on an Argand diagram.

$$|z - 4 - 2i| \leq 2$$

$$|z - 4| < |z - 6|$$

$$0 \leq \arg(z - 2 - 2i) \leq \frac{\pi}{4}$$

$$|z - 4 - 2i| \leq 2, |z - 4| < |z - 6|$$

and $0 \leq \arg(z - 2 - 2i) \leq \frac{\pi}{4}$

Test Your Understanding

P6 June 2003 Q4(i)(b)

Shade the region for which

$$|z - 1| \leq 1 \text{ and } \frac{\pi}{12} \leq \arg(z + 1) \leq \frac{\pi}{2}$$