

## Complex Number Loci vs $y = mx + c$

Find the equations of the lines upon which the following complex loci sit...

$$\arg(z) = \frac{\pi}{3}$$

$$\arg(z) = \theta$$

$$\arg(z - 4i) = \frac{\pi}{3}$$

$$\arg(z - ai) = \theta$$

$$\arg(z - a) = \theta \text{ (where } a \text{ is real)}$$

$$\arg(z - 4) = \frac{\pi}{3}$$

$$\arg(z - (a + bi)) = \theta$$

$$\arg(z - 4i) = \frac{2\pi}{7}$$

$$\arg(z - 4) = \frac{2\pi}{7}$$