**1F nth Roots of Complex Numbers**

1. Solve the equation z3 = 1 and represent your solutions on an Argand diagram.



1. Show that the three cube roots of 1 can be written as $1+ω+ω^{2}$ where $1+ω+ω^{2}=0$

Summary notes:

1. Solve the equation $z^{4}-2\sqrt{3}i=2$

Give your answers in both the modulus-argument and exponential forms.

1. Solve the equation:

$$z^{3}+4\sqrt{2}+4i\sqrt{2}=0$$