COMPLEX NUMBERS (Q 4, PAPER 1)

LESSON NO. 2: POWERS OF *i*

2006

4 (b) (ii) Write in its simplest form $i(i^4 + i^5 + i^6)$.

2003

4 (a) Given that $i^2 = -1$, find the value of:

(i) i^8

(ii) i^7.

1998

4 (a) Let $w = 2i$, where $i^2 = -1$. Plot

(i) w^2,

(ii) w^3

on an Argand diagram.

ANSWERS

2006 4 (b) (ii) -1

2003 4 (a) (i) 1 (ii) $-i$

1998 4 (a) $w^2 = -4 + 0i$, $w^3 = 0 - 8i$