

- 2 (i) In the expression  $(1 - px)^6$ ,  $p$  is a non-zero constant. Find the first three terms when  $(1 - px)^6$  is expanded in ascending powers of  $x$ . [2]
- (ii) It is given that the coefficient of  $x^2$  in the expansion of  $(1 - x)(1 - px)^6$  is zero. Find the value of  $p$ . [3]