- 2 (i) Find the terms in  $x^2$  and  $x^3$  in the expansion of  $\left(1 \frac{3}{2}x\right)^6$ . [3]
  - (ii) Given that there is no term in  $x^3$  in the expansion of  $(k+2x)(1-\frac{3}{2}x)^6$ , find the value of the constant k.