

**7 In this question you must show detailed reasoning.**

**(a)** Show that  $(x + 2)^4 - 6(x + 2)^2 - 16 \equiv x^4 + 8x^3 + 18x^2 + 8x - 24$ . **[1]**

**(b)** Hence solve the equation  $x^4 + 8x^3 + 18x^2 + 8x - 24 = 0$ . **[4]**