6   **(i)** Show that $\cos^4 x \equiv 1 - 2\sin^2 x + \sin^4 x$.   [1]

      (ii) Hence, or otherwise, solve the equation $8\sin^4 x + \cos^4 x = 2\cos^2 x$ for $0° \leqslant x \leqslant 360°$.   [5]