

Further Maths - Independent task

- (i) Simplify $\sqrt{48} + \sqrt{192} - 2\sqrt{27}$
- (ii) Express $(2 - 3\sqrt{7})^3$ in the form $a + b\sqrt{7}$ where a and b are integers.
- (iii) Expand and simplify $(2 - \sqrt{3} + \sqrt{5})^3$
- (iv) (a) Expand and simplify $(1 + \sqrt{3})^2$
- (b) Find all the real values of x that satisfy

$$x^4 + \frac{36}{x^4} = 24$$

Leave your answers in the form of surds.