

STEP/General: Exercises - Overview (13/6/23)**Q1**

(i) Does $\sqrt{4}$ equal 2 or ± 2 ? (ii) Simplify $\sqrt{x^2}$

Q2

Find the square roots of $49 - 12\sqrt{5}$

Q3

(i) Find an expansion for $(a + b + c)^3$, and give a justification for the coefficients.

(ii) Extend this to $(a + b + c)^4$

Q4

Show that $e^3 > 4e^{\frac{3}{2}}$ without using a calculator. [You may use the fact that $e = 2.71828 \dots$]