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Q4 (a)

(i) Factorise  $x^2 + 3x - 70$

(ii) Expand and simplify  $9(k+2) + 3(k-8)$

(b) Simplify fully

(i)  $(m^8 \div m^6)(3m^2)^2$

(ii)  $\frac{27y^7}{18y^4}$

(iii)  $11t^2 - 5t - 6t^2 - 4t + t$

(iv)  $2a^4 + 3m - a - 3a^4 + 3m - a$

(c) (i) Factorise  $x^2 - 81$

(ii) simplify  $\frac{x^2 - 36}{x + 6}$

(iii) simplify

$$\frac{k}{2} + \frac{k}{7}$$

(iv) simplify  $64^{1/2}$

(v) simplify  $\frac{5x^4y^7}{15x^{-4}}$

(vi) simplify  $\frac{4x}{y} + \frac{5y}{x^2}$

(vii) simplify  $\frac{4x}{y} \times \frac{5y}{x^2}$

(viii) simplify  $(49x^6y^{16}z^5)^{1/2}$