3 Write $\dfrac{\sqrt{(9p^2q)} \times r^{-3}}{(2p)^3 q^{-1} \sqrt[5]{r}}$ in the form $kp^a q^b r^c$, where k, a, b and c are constants. [4]

4 Solve the equation $3\sin\left(2x + \frac{\pi}{4}\right) = \sqrt{3}\cos\left(2x + \frac{\pi}{4}\right)$, for $0 \leqslant x \leqslant \pi$. [5]