

Question			Answer	Marks	AO	Guidance
3			take reciprocal calculate cube calculate square root to obtain $m = 343, n = 512$ isw or $\frac{343}{512}$ isw	B1 B1 B1		operations may be in any order, but 3 distinct numerical steps required for 3 marks if taking reciprocal and one other step are combined into one step, allow B1B1B0 if B0B0 for cubing and square rooting, allow SC1 for $\left(\sqrt{\frac{49}{64}}\right)^3 = \frac{343}{512}$ or $\left(\sqrt{\frac{64}{49}}\right)^3 = \frac{512}{343}$ seen
				[3]		
		eg	$\left(\frac{49}{64}\right)^{\frac{3}{2}}$ $\left(\frac{7}{8}\right)^3$ $\frac{343}{512}$ isw	B1 B1 B1	1.1 1.1 1.1	taking reciprocal; may be awarded after simplification square roots found; may be seen before taking reciprocal dependent on award of both preceding marks
				[3]		
		eg	<i>Alternatively</i> $\left(\frac{64}{49}\right)^{-3} = \left(\frac{m}{n}\right)^2$ $\left(\frac{49}{64}\right)^3 = \left(\frac{m}{n}\right)^2$ $117649 = m^2$ and $262144 = n^2$ $m = 343$ and $n = 512$	B1 B1 B1		dependent on award of both preceding marks