

1	two of: $60 \div 8 (= 7.5)$ or 7 $20 \div 8 (= 2.5)$ or 2 $24 \div 8 (= 3)$		5	M1	at least two divisions to find number of cartons for l or w or h . Could be written on sides of box
	"7" \times "2" \times "3" (= 42) or "7" \times 8 (=56) and "2" \times 8 (= 16) and "3" \times 8(= 24)			M1	correct method to find the number of cartons that fit or finding the dimensions of the occupied space
	$60 \times 24 \times 20 (= 28\,800)$ or $8 \times 8 \times 8 (= 512)$ or $(7 \times 8) \times (2 \times 8) \times (3 \times 8) (= 21\,504)$ oe eg $56 \times 16 \times 24 (= 21\,504)$			M1	method to work out volume of either B or C
	"28 800 – "42" \times "512" or "28 800" – "21504"			M1	complete method to find volume of packing material.
		7296		A1	allow 7300 from correct working
					If no marks scored SC B3 for $60 \times 24 \times 20 - "56" \times 8 \times 8 \times 8 (= 128)$
1 Alt Finding space left	two of $7 \times 8 (= 56)$, $3 \times 8 (= 24)$, $2 \times 8 (= 16)$ or two of $60 - 56 (= 4)$, $20 - 16 (= 4)$, $24 - 24 (= 0)$		5	M1	two lengths of filled space found or two lengths of empty space found.
	"4" \times $24 \times 20 (= 1920)$ or "4" \times $24 \times 60 (= 5760)$ or "4" \times "4" \times 24 (= 384) or or "4" \times 24 \times "16" (= 1536) or "4" \times 24 \times "56" (= 5376)			M1	at least one correct product seen
				M1	at least two correct products seen
	eg "1920 + "5760" – "384" or "1536" + "384" + "5376" or "5760" + "1536" or "1920" + "5376" oe			M1	complete method to find volume of packing material.
		7296		A1	
					Total 5 marks

2	$2.4 \div 0.4 (= 6)$ or $240 \div 40 (= 6)$ or $10 \div 0.4 (= 25)$ or $1000 \div 40 (= 25)$ or $40 \times 40 \times 40 (= 64\,000)$ or $0.4 \times 0.4 \times 0.4 (= 0.064)$ or $1000 \times 240 \times 240 (= 57\,600\,000)$ or $10 \times 2.4 \times 2.4 (= 57.6)$ oe		3	M1	could show the number of boxes along the edge of a container – award marks if this is unambiguous.
	"6" \times "6" \times "25" oe or "57 600 000" \div "64 000" or "57.6" \div "0.064" oe			M1	fully correct method to find greatest number of boxes
	<i>Correct answer scores full marks (unless from obvious incorrect working)</i>	900		A1	
					Total 3 marks