1		343	P1	for finding area of one face eg 294 ÷ 6 (= 49)
			P1	for $\sqrt{\text{“49”}}$ (=7)
			P1	for “49” × “7” **or** for “7” × “7” × “7” oe
			A1	cao

2	(a)		40	P1	for the start of a process to find the number of boxes that will fit along one edge, eg. 240 ÷ 40 (= 6) or 150 ÷ 30 (= 5) or 140 ÷ 35 (= 4) or 240 ÷ 30 (= 8) or 240 ÷ 35 (= 6.85… ie 6 boxes), etc. or for a process to find a volume, eg. 40 × 30 × 35 (= 42000) or 0.4 × 0.3 × 0.35 (= 0.042) or 240 × 150 × 140 (= 5040000) or 2.4 × 1.5 × 1.4 (= 5.04) NB: condone incorrect or no conversion between m and cm
				P1	for a complete process to find the maximum number of boxes, eg. “6” × “5” × “4” (= 120) or “5040000” ÷ “42000” (= 120) or “5.04” ÷ “0.042” (= 120)
				P1	(dep on P1) for (their number of boxes) ÷ 3, eg. 120 ÷ 3 (= 40)
				A1	cao
	(b)		explanation	C1	for explaining that it could take more time or it could take less time **with** an appropriate reason, eg. “less space means less number of boxes which will take less time” or “it will take more time since a different arrangement would be required”

3		280	P1	for starting to use Pythagoras to find the missing side eg $8.4^2 - 7.2^2$ (= 18.72)	Award P1 for a correct Pythagorean statement eg $x^2+7.2^2=8.4^2$
			P1	for a complete process to find the missing side eg $\sqrt{70.56-51.84}$ **or** $\sqrt{18.72}$ (=4.32....)	4.3 truncated or rounded can imply P2
			P1	(dep P1) for a process to find the area of the triangular face eg [length of base] × 7.2) ÷ 2 (=15.57..) **OR** the volume of the cuboid eg [length of base] × 7.2 ×18 (=560.7..)	Uses a figure they show as the length of the base of the right angled triangle but dep on P1 Allow 15.57.. truncated or rounded if unsupported
			P1	for a complete process to find the volume of the prism eg “15.5..” × 18 **or** “560.7..” ÷ 2	
			A1	answer in the range 278 – 281	If an answer is given in the range 278 to 281 but then incorrectly given to 3 sig fig this mark can still be awarded.

4	No (supported)	P1	for finding the area of 3 or more faces of the cuboid **and** adding eg (6 × 8) + (8 × 18) + (6 × 18) … or “48” + “144” + “108” … (= 300)		Could be an addition of *any* three faces eg 48 + 48 + 144 etc.
		P1	complete process to find surface area of cuboid, eg 6 × 8 × 2 + 6 × 18 × 2 + 8 × 18 × 2 (= 600)		
		P1	for process to find side length of cube, eg [surface area] ÷ 6 **and** square rooting (= 10)	for a process to find the volume of the cuboid 6 × 8 × 18 (= 864) **and** cube rooting (= 9.52…) to find a side length	[surface area] must come from the addition of at least three attempts at area, but not from volume.
		P1	(dep on previous P1) for processes to find volume of cube **and** volume of cuboid, eg [side length]^3 (= 1000) **and** 6 × 8 × 18 (= 864)	(dep on previous P1) for process to find surface area of cube, eg. (“9.52…”)^2 × 6 (= 544.28…)	
		A1	No with 1000 **and** 864 **OR** No with 600 **and** 544(.28…)		

5	600 cm^3	M1	for a complete method to find the volume eg 4 × 10 × 15	If extra steps are shown do not award this mark
		A1	for 600	Ignore incorrect or absent units for this mark
		B1	(indep) cm^3	Ignore incorrect or absent numerical answer for this mark