Question	Answer	Mark	Mark scheme	Additional guidance
22 (a)	6	P1	for process to find a relevant area, eg $16 \times 14 \div 2$ (= 112) **or** $\pi \times \left(\frac{7}{2}\right)^2$ (= 38.4...)	May be implied by $\frac{49}{4}\pi$
		P1	for process to find the shaded area, eg "112" – "38.4..." (= 73.51...) **or** "8.96" – "3.07…" (= 5.88…)	
		P1	for a process to find the number of bags required for a full or partial area, eg "73.51..." ÷ 12.5 (= 5.88...) **or** "112" ÷ 12.5 (= 8.96) **or** "38.4…" ÷ 12.5 (= 3.07...) **or** [area] ÷ 12.5 **or** uses12.5 in a build up method to exceed [area], eg 12.5×6 (= 75) oe	[area] can be any area but cannot be a length
		A1	cao	
(b)	Statement	C1	for a valid statement relating to effect on number of bags needed, eg **Acceptable examples** Will need more bags It will increase Will need an extra bag or will now need 7 bags He won't have enough There is no change (ft their [area] but must be supported by calculation) **Not acceptable examples** Will cover less area Needs to change the number of bags needed There is no change (unsupported or incorrect ft their [area]) He may need more bags Calculation using 11 with no supporting statement	