

1		4378.2(0)	P1	for a process to find the circumference of the circle or the semi circle, eg $\pi \times 50$ (= 157.0796327) or $0.5 \times \pi \times 50$ (= 78.53981634)	<p>Figures may be truncated or rounded</p> <p>May use circle at this point, figures imply method One cost is 1 length or labour Figures may be truncated or rounded</p> <p>Two different aspects means arc and straight edge or arc and labour or straight edge and labour Condone circle and labour or circle and straight edge.</p> <p>Finding the cost of the perimeter is two costs added and so implies the previous P1 The circle is not allowed to be counted as one of the two costs for this mark</p>
			P1	for a complete process to find the perimeter of the field, eg $(0.5 \times \pi \times 50) + 50$ (= 128.5...) OR for working with one cost eg "157.07..." $\times 29.86$ (= 4690.11...) or "78.5..." $\times 29.86$ (= 2345.198...) or 50×29.86 (=1493) or 3×180 (= 540)	
			P1	For finding the costs of two different aspects eg 2 of "78.5..." $\times 29.86$ (= 2345.1...) or 50×29.86 (= 1493) or 3×180 (= 540)	
			P1	for a adding at least 2 costs eg "2345.1..." + "540" (=2885.1...) or "1493" + "540" (=2033) or "128.5..." $\times 29.86$ (= 3838.2..)	
			A1	for answer in the range 4377 – 4392	

2	(a)	Yes (supported)	P1	for start of process, eg 5×9 (= 45) or 10×14 (= 140) or 5×2 (= 10 (kg)) or $3 \div 2$ (= 1.5 (boxes))	<p>Accept values rounded or truncated to 1dp in both (a) and (b). Ignore units</p> <p>Accept 9.4 Accept 4.7</p> <p>Values used in (a) do not need repeating in (b) as long as intention is clear</p>
			P1	for process using ratio of areas, eg "140" \div "45" (= 3.1...) or for using ratio of amount of seed eg "10" \div 3 (= 3.3...) or for finding coverage for 1 kg of grass seed, eg "45" \div 3 (=15 (m ²))	
			P1	for process to find amount of seed needed, eg "140" \div "45" \times 3 (= 9.3...kg) or "140" \div "45" \times "1.5" (= 4.6...(boxes)) oe or "15" \times 2 (= 30 (m ² per box)) and "140" \div "30" (= 4.6...(boxes)) or for process to find area that can be seeded, eg "10" \div 3 \times "45" (= 150 (m ²)) or "140" \div "10" (= 14 (m ²)) oe	
			C1	for "Yes" supported by correct figures eg 4.6...(and 5), or 9.3...and 10 or 150 and 140 (or 140 to 148.5) or 15 and 14	
			(b)	Yes, (does not have enough) (supported)	

3		41.6	P1	for start of process to find the length of the hypotenuse, eg (hyp ² =) $8^2 + 10^2$ (= 164)	<p>Note lengths may be seen on the diagram</p> <p>8 + 8+ "12.8" + "12.8" oe is acceptable for this mark</p> <p>If an answer in the range 41 to 42 is given in the working space then incorrectly rounded, award full marks.</p>
			P1	for complete process to find hypotenuse, eg $\sqrt{8^2 + 10^2}$ or $\sqrt{64+100}$ or $2\sqrt{41}$ or $\sqrt{164}$ (= 12.8...)	
			P1	(dep P2) for complete process to find the required perimeter, eg $8 + 8 + 10 + "12.8" + "12.8 - 10"$ or $16 + 4\sqrt{41}$	
			A1	for answer in the range 41 to 42	