21	$\pi \times 4.8^2 \times \frac{72}{360}$ (= 14.4(76…)) oe		5	M1 for finding the area of the sector
	$\frac{1}{2} \times 4.8^2 \times \sin 72$ (= 10.9(56…) or 11) oe or $\frac{1}{2} \times 5.6(4...) \times 3.8(8...)$ oe			M1 for finding the area of the triangle (Allow use of cosine rule/sine rule/SOHCAHTOA/Pythagoras to find *AC* (5.6(427.8…)) and *OM* (3.8(8328…)) where *M* is the midpoint of *AC*)
	"14.4(76…)" – "10.9(56…)" (= 3.520…)			M1 for finding the shaded area with all figures from correct working
	"3.5(20…)" × 14 × 3 × 60 "3.5(20…)" × 2520			M1
	Award marks within the range from correct working	8870		A1 accept 8820 – 8950 from correct working
				Total 5 marks

22	$2t + 1 + (n-1)3 = 14t - 5$		4	M1 for the use of *n*th term = $a + (n-1)d$ to find *n*
	$(n =) 4t - 1$ or $(n =) -1 + 4t$			A1
	$(S_n =) \frac{"4t-1"}{2}\left[2(2t+1) + ("4t-1"-1)3\right]$ or $(S_n =) \frac{"4t-1"}{2}\left[2t + 1 + 14t - 5\right]$ oe			M1 for the use of S_n formula (must be in terms of *t*) Allow their expression for *n* dep on M1
	Working required	$p = 2$ $q = 4$ $r = 2$		A1 dep on M2 allow $(S_n =) 2(4t-1)^2$ Values of *p*, *q* and *r* must come from correct working
				Total 4 marks