25	$86 = 10 + (20 - 1)d$ or $(d =)\dfrac{86-10}{19}$ oe or $4n + 6$ or $d = 4$		5	M1 for correct substitution into $U_n = a + (n-1)d$
	$5194 = \dfrac{N}{2}[2(10) + (N-1)4]$ oe or $5194 = \dfrac{N}{2}[20 + 4N - 4]$ oe or $5194 = \dfrac{N}{2}[16 + 4N]$ oe			M1 dep on M1 for correct substitution into $S_n = \dfrac{n}{2}[2a + (n-1)d]$ Allow any letter for N
	eg $N^2 + 4N - 2597 (= 0)$ oe eg $N^2 + 4N = 2597$ or $2N^2 + 8N - 5194 (= 0)$ oe or $4N^2 + 16N - 10388 (= 0)$ oe			M1ft dep on previous M1 for forming a 3-term quadratic where at least 2 coefficients are correct
	eg $(N - 49)(N + 53)(= 0)$ eg $(N=)\ \dfrac{-4 \pm \sqrt{4^2 - (4 \times 1 \times -2597)}}{2 \times 1}$ eg $(N + 2)^2 - 4 = 2597$			M1ft dep on previous M1 for a method to solve **their** 3-term quadratic using any correct method Allow one sign error and some simplification – allow as far as eg $\dfrac{-4 \pm \sqrt{16 + 10388}}{2}$ or $\dfrac{-4 + \sqrt{16 + 10388}}{2}$
	Working required	49		A1 dep on M2 M4A0 for 49 and –53 given as their answers
				Total 5 marks