Question		Working	Answer	Mark	Notes	
17		(Term n =) $\frac{1}{2}n(n+1)$ or (Term n +1 =) $\frac{1}{2}(n+1)(n+2)$ $\frac{1}{2}n(n+1)+\frac{1}{2}(n+1)(n+2)$ $\frac{1}{2}(n+1)(n+n+2)=\frac{1}{2}(n+1)(2n+2)$ or $\frac{1}{2}n^2+\frac{1}{2}n+\frac{1}{2}n^2+\frac{1}{2}n+n+1 \rightarrow$ n^2+2n+1	$(n+1)^2$ shown	4	M1 M1 M1 A1	Algebraic representation of one of the two consecutive terms in sequence Adding two consecutive terms Factorisation or multiplying out correctly to get to n^2+2n+1 Dep on M3
						Total 4 marks

18	(a)		$\frac{3}{4}$ oe	1	B1	
	(b)	$\frac{x-5}{4(x-5)-3}$	$\frac{x-5}{4x-23}$	2	M1 A1	 cao
	(c)	$y=\frac{x}{4x-3}$ or $x=\frac{y}{4y-3}$ $y(4x-3)=x$ or $x(4y-3)=y$ $4xy-3y=x$ or $4xy-3x=y$ $4xy-x=3y$ or $4xy-y=3x$ $x(4y-1)=3y$ or $y(4x-1)=3x$	$\frac{3x}{4x-1}$ oe	3	M1 M1 A1	Moving the denominator to the other side of the equation Factorising the variable on one side in a correct expression
	(d)	Tangent drawn at $x = -0.5$ (G =) 18 ÷ 3 oe	$5 \rightarrow 7$	3	M1 M1 A1	Drawing a tangent at $x = -0.5$ Correct method to work out the gradient of the tangent at $x = -0.5$ or $x = +0.5$ Dep on 1st M1 **SC B1 B1 for drawing a tangent at x =+0.5 and gradient = − 3 → −4**
						Total 9 marks