

Question	Scheme	Marks	AOs
2(a)(i)	$u_2 = 3k - 2$	M1	1.1b
(ii)	$u_3 = 3(3k - 2) - 2 = 9k - 6 - 2 = 9k - 8$	A1	1.1b
		(2)	
(b)	$u_4 = 3(9k - 8) - 2$	M1	1.1b
	$\sum_{r=1}^4 u_r = 44 \Rightarrow k + 3k - 2 + 9k - 8 + 27k - 26 = 44 \Rightarrow k = \dots$	M1	3.1a
	$k = 2$	A1	1.1b
		(3)	

(5 marks)

### Notes

(a)(i)(ii)

M1: Evidence of use of the given formula to find either  $u_2$  or  $u_3$

A1: Both correct simplified expressions

(b)

M1: Attempts to find the 4<sup>th</sup> term

M1: A complete method to find  $k$ : Attempts to find the 4<sup>th</sup> term, adds their first 4 terms, sets equal to 44 and solves a linear equation in  $k$ .

A1: Correct value for  $k$ .