Question	Scheme	Marks	AOs
10(a)	$k = 20 \Rightarrow \dfrac{8-2k}{4+k} = \dfrac{-32}{24}$ which is < -1 so the series does not converge	B1	2.4
		(1)	
(b)	$\dfrac{8-2k}{4+k} < 1 \Rightarrow k > ...$ or $\dfrac{8-2k}{4+k} > -1 \Rightarrow k < ...$	M1	1.1b
	$\dfrac{8-2k}{4+k} < 1 \Rightarrow k > ...$ and $\dfrac{8-2k}{4+k} > -1 \Rightarrow k < ...$	M1	2.1
	$k > \dfrac{4}{3}$ or $k < 12$	A1	1.1b
	$\dfrac{4}{3} < k < 12$	A1	2.2a
		(4)	
		(5 marks)	

Notes

(a)

B1: Correct explanation

(b)

M1: Attempts to solve either $\dfrac{8-2k}{4+k} < 1$ or $\dfrac{8-2k}{4+k} > -1$ to obtain one bound

M1: Attempts to solve both $\dfrac{8-2k}{4+k} < 1$ and $\dfrac{8-2k}{4+k} > -1$ to obtain both bounds

A1: One correct

A1: Deduces the correct range for k