Question Number	Scheme	Marks
3(a)	$(1+px)^{-5} = 1+(-5)(px)+\frac{(-5)(-6)(px)^2}{2!}+\frac{(-5)(-6)(-7)(px)^3}{3!}$ $+\frac{(-5)(-6)(-7)(-8)(px)^4}{4!}+\ldots$	M1
	$=1-5px+15p^2x^2-35p^3x^3+70p^4x^4+\ldots$	A1A1 (3)
(b)	$70p^4+2\times35p^3=0$	M1
	$p=-1$	A1 (2)
		[5]

(a)	
M1	Attempt the binomial expansion up to and including the term in x^4. Must start with 1 and (px) must appear in at least one term. Ignore terms beyond x^4. 2! or 2, 3! or 6, 4! or 24 accepted.
A1	Any 2 correct algebraic terms, simplified (1 is not algebraic) Numbers must be simplified but $(px)^n$, n = 2,3,4 allowed
A1	Fully correct simplified expansion as shown but allow terms such as +(- 5px) etc
(b)	
M1	Use their coefficients and the **given** equation to form an equation in p (If powers of x included give M0)
A1	Correct value of p $p=-1$ only Must have come from correct working