Question	Scheme	Marks	AOs
7(a)	2^7 or 128 as the constant term	B1	1.1b
	$\left(2-\frac{3x}{4}\right)^7 = ... + {}^7C_1(2)^6\left(-\frac{3x}{4}\right) + {}^7C_2(2)^5\left(-\frac{3x}{4}\right)^2 + {}^7C_3(2)^4\left(-\frac{3x}{4}\right)^3 + ...$ $= ... + 7\times(2)^6\left(-\frac{3x}{4}\right) + 21\times(2)^5\left(-\frac{3x}{4}\right)^2 + 35\times(2)^4\left(-\frac{3x}{4}\right)^3 + ...$	M1 A1	1.1b 1.1b
	$= 128 - 336x + 378x^2 - \frac{945}{4}x^3 + ...$	A1	1.1b
		(4)	
(b)	Coefficient of x^2 is $"-336" + 5\times"378"$	M1	3.1a
	$= 1554$	A1	1.1b
		(2)	
			(6 marks)

Notes

(a)

B1: Sight of 2^7 or 128 as the constant term

M1: An attempt at the binomial expansion. This can be awarded for the correct structure of the 2nd, 3rd or 4th term. The correct binomial coefficient must be associated with the correct power of 2 and the correct power of $\pm\frac{3x}{4}$

A1: For a correct simplified or unsimplified second or fourth term (with binomial coefficients evaluated)

A1: $128 - 336x + 378x^2 - \frac{945}{4}x^3$ which may be written as a list

(b)

M1: A correct strategy for the required coefficient.

A1: 1554 cao