Marked example 1

Paper 1 style · No calculator

1 5 marks SL 1.9 ●○○ Routine

Consider the expansion of $(2+x)^4$.

(a) Expand $(2+x)^4$ in ascending powers of x, simplifying each term. **[3]**

(b) Hence find the coefficient of x^2 in the expansion of $(2+x)^4(1-x)$. **[2]**

MARKSCHEME (a)

coefficients 1, 4, 6, 4, 1 **(M1)**

$16+32x+24x^2+8x^3+x^4$ **A2**

Total 3 marks

Note A1 for three correct terms.

MARKSCHEME (b)

$24\times 1+32\times(-1)$ **(M1)**

$=-8$ **A1**

Total 2 marks

Note The two ways of making x^2.

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