Binomial Assessment

8 Find the binomial expansion of $\left(x + \dfrac{5}{x}\right)^3$, simplifying the terms. **[4]**

7 Expand $\left(1 + \frac{1}{2}x\right)^4$, simplifying the coefficients. **[4]**

6 Find the first 3 terms, in ascending powers of x, of the binomial expansion of $(2 - 3x)^5$, simplifying each term. **[4]**

5 Find the coefficient of x^4 in the binomial expansion of $(5 + 2x)^6$. **[4]**

3 Expand and simplify $(n + 2)^3 - n^3$. **[3]**

6 **(i)** Evaluate $^5C_3$. **[1]**

   (ii) Find the coefficient of x^3 in the expansion of $(3 - 2x)^5$. **[4]**

6 The binomial expansion of $\left(2x + \dfrac{5}{x}\right)^6$ has a term which is a constant. Find this term. **[4]**

6 Find the coefficient of x^3 in the binomial expansion of $(2 - 4x)^5$. **[4]**

7 Find the coefficient of x^4 in the binomial expansion of $(5 + 2x)^7$. **[4]**

7 Find and simplify the binomial expansion of $(3x - 2)^4$. **[4]**