

$$4.9 \quad T_6 = \binom{n}{5} \left(x^{-\frac{1}{4}}\right)^{n-5} (-x)^5$$

$$x^0: \quad 0 = -\frac{1}{4}n + 5 + 5 \rightarrow \boxed{n=25}$$

$$T_{13} = \binom{25}{12} \left(x^{-\frac{1}{4}}\right)^{13} (-x)^{12} = \binom{12}{25} x^{\frac{83}{4}} \quad \text{Pencil mark: } \frac{12}{25}$$

$$T_{14} = \binom{25}{13} \left(x^{-\frac{1}{4}}\right)^{12} (-x)^{13} = -\binom{13}{25} x^{10}$$