To Determine a Particular Term in the Expansion.

In the expansion of $\left(x^{\alpha} \pm \dfrac{1}{x^{\beta}} \right)^{n}$, if x^{m} occurs in T_{r+1}, then r is given by $n\alpha - r(\alpha + \beta) = m \Rightarrow$

$$r = \frac{n\alpha - m}{\alpha + \beta}$$

Thus in above expansion if constant term which is independent of x, occurs in T_{r+1} then r is determined by

$$n\alpha - r(\alpha + \beta) = 0 \Rightarrow r = \frac{n\alpha}{\alpha + \beta}$$