1 ⇒ $T(n) = 2T(n/4) + 3n$ $\boxed{T(1) = 5}$ — $3n$

2 — $T(n/4)$ $T(n/4)$ — $2 \cdot \left(\frac{n}{4}\right) \cdot 3$

4 — $T(n/4^2)$ $T(n/4^2)$ $T(n/4^2)$ $T(n/4^2)$ — $4 \cdot \left(\frac{n}{4^2}\right) \cdot 3$

8 — $T(n/4^3)$ $T(n/4^3)$ $T(n/4^3)$ $T(n/4^3)$ — $8 \cdot \left(\frac{n}{4^3}\right) \cdot 3$

$2^{(n-1)}$ — $T\left(\frac{n}{4^{n-1}}\right)$ $T\left(\frac{n}{4^{n-1}}\right)$ — $2^{n-1} \cdot \left(\frac{n}{4^{n-1}}\right) \cdot 3$

2^n — 5 5 5 5 — $5 \cdot 2^{\log_4 n}$

$$T(n) = \sum_{i=1}^{\log_4 n - 1} 2^i \cdot 3\left(\frac{n}{4^i}\right) = 3n \sum_{0}^{\log_4 i} \left(\frac{1}{2}\right)^i = 3n \cdot \left(\frac{\frac{1}{2}\log_4 n - 1}{\left(\frac{1}{4} - 1\right)}\right)$$

$$= 3n \cdot \left(\frac{n^{\log_4 \left(\frac{1}{2}\right)} - 1}{-\frac{1}{2}}\right) = 3n \left(\frac{\frac{1}{\sqrt{n}} - 1}{-\frac{1}{2}}\right)$$

$$= -\frac{\frac{3n}{\sqrt{n}}}{2} + \frac{3n}{\frac{1}{2}} = \boxed{6n - \frac{6n}{\sqrt{n}}}$$

$$T_n = T(0) = \boxed{6n - \frac{6n}{\sqrt{n}}}$$