## In-class exercises: Recurrences

Using iteration find a tight bound for the following recurrence:

$$
T(n)=8 T(n / 2)+n^{2}
$$

Prove by induction that the solution for the recurrence $T(n)=8 T(n / 2)+n^{2}$ is $T(n)=O\left(n^{3}\right)$.

