ENGG2780A Quiz 2 1155144002 PRINCIPE Jericho Bibat

$$P(N|n\geq 50) \propto P(n\geq 50|N)P(N)$$
$$\propto \sum_{n=50}^{100} \frac{1}{92350}(n-60)^2 \cdot \left(\frac{1}{92350}(n-60)^2\right)$$
$$\propto \frac{1}{92350}(n-60)^2$$
$$\propto (n-60)^2$$

$\because P(N|n\geq 50) \propto (n-60)^2$,

$\therefore n_{MAP} = 100$, i.e. ~~n is highest, at~~ $P(N|n\geq 50)$ is highest at 100.