5) $\tau = 170 \text{ MeV}$, $n_0 = 0.16 \text{ fermi}^{-3}$

$$n_Q = \left(\frac{m\tau}{2\pi\hbar^2}\right)^{3/2} = \left(\frac{m c^2 \tau}{2\pi \hbar^2 c^2}\right)^{3/2}$$

$$= \left(\frac{940 \text{ MeV} \cdot 170 \text{ MeV}}{2\pi \, (197)^2 \text{ MeV}^2 \text{ fm}^2}\right) = 0.65 \text{ fm}^{-3}$$

$$\frac{n}{n_Q} = 0.25 < 1$$