1.

Resolving power is $\varphi = \frac{1.22\lambda}{D}$

Optical Resolving power is $\varphi_1 = \frac{1.22*550*10^{-9}}{D}$

X-ray Resolving power is $\varphi_2 = \frac{1.22*10^{-10}}{D}$

$\varphi_1 > \varphi_2$, So Optical Resolving power > X-ray Resolving power

ANSWER: Optical Resolving power is higher

2.

Use Pogson's law:

$$m_1 - m_2 = -2.5\lg(\frac{E_1}{E_2})$$

$$m_1 - (-25) = -2.5\lg(\frac{10^2}{4^2})$$

$$m_1 - (-25) = -5\lg(\frac{10}{4})$$

$$m_1 - (-25) = -1$$

$$m_1 = -26$$

ANSWER: Apparent magnitude is $m_1 = -26$. Apparent magnitude for the sun is $m_1 = -26.7$. So the sun will be brighter.