(3/a) $2\pi hc^2 \left(\frac{\lambda^{-5}}{e^{\text{const.}} - 1} \right) = I(\lambda)$

$$\frac{dI}{d\lambda} = 0 \Rightarrow \frac{d}{d\lambda}\left(\frac{\lambda^{-5}}{e^{hc\lambda^{-1}/k_BT} - 1} \right) = 0$$

$$\frac{d}{d\lambda}\left[\lambda^{-5} \left(e^{hc\lambda^{-1}/k_BT} - 1 \right)^{-1} \right] = 0$$

$$(-5)\lambda^{-5-1}\left(e^{hc\lambda^{-1}/k_BT} - 1 \right)^{-1} + \lambda^{-5}(-1)\left(e^{hc\lambda^{-1}/k_BT} - 1 \right)^{-2} \cdot \frac{hc}{k_BT}(-\lambda^{-2}) e^{\textcircled{a}}$$

$$-5\lambda^{-6}\left(e^{hc\lambda^{-1}/k_BT} - 1 \right)^{-1} + \frac{\lambda^{-7} hc\, e^{\textcircled{a}}}{k_BT}\left(e^{\textcircled{a}} - 1 \right)^{-2}$$

x

$\rightarrow \left(e^{\textcircled{a}} - 1\right)^{-1} \frac{hc}{k_BT} \lambda^{-1} e^{\textcircled{a}} - 5 = 0$

$$\left(e^x - 1 \right)^{-1} x\, e^x - 5 = 0$$

$$\frac{x\, e^x}{(e^x - 1)} - 5 = 0 \Rightarrow x - 5\left(e^x - 1\right) \cdot e^{-x} = 0$$

$$x - 5e^x e^{-x} + 5e^{-x} = 0$$

$$\boxed{x + 5e^{-x} - 5 = 0}$$