a.) Photon: $\lambda = 550\,nm$

Energy: $E = hf = \frac{hc}{\lambda}$ from $f = \frac{c}{\lambda}$

Now: $h = 6.63 \times 10^{-34}\ J\,s$
$c = 3 \times 10^{8}\ m/s$
$\lambda = 550 \times 10^{-9}\ m$

So: $E = 3.616 \times 10^{-19}\ J \left(\frac{1\,eV}{1.6 \times 10^{-19}\ J} \right) = \underline{2.26\,eV}$

b.) Photon: $E = 7.5\,keV = 7.5 \times 10^{3}\,eV \left(\frac{1.6 \times 10^{-19}\ J}{1\,eV} \right)$

$= 1.2 \times 10^{-15}\ J$

So:

$E = \frac{hc}{\lambda} \Rightarrow \lambda = \frac{hc}{E} = 1.658 \times 10^{-10}\ m$

$= \underline{0.1658\ nm}$