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$$eV = h\nu_0 = h\frac{c}{\lambda_0} \text{より、} \quad (\text{X線の式})$$

$$e = 1.6 \times 10^{-19} \text{C} \quad , \quad V = 10 \times 10^3 \text{V} \quad , \quad h = 6.6 \times 10^{-34} \text{J} \cdot \text{s}$$

を代入して、

$$(1.6 \times 10^{-19}) \cdot (10 \times 10^3) = (6.6 \times 10^{-34}) \cdot \nu_0$$

$$\therefore \nu_0 = 2.4 \times 10^{18} \text{Hz}$$

また、

$$e = 1.6 \times 10^{-19} \text{C} \quad , \quad V = 10 \times 10^3 \text{V} \quad , \quad h = 6.6 \times 10^{-34} \text{J} \cdot \text{s} \quad , \quad c = 3.0 \times 10^8 \text{m/s}$$

を代入して、

$$(1.6 \times 10^{-19}) \cdot (10 \times 10^3) = (6.6 \times 10^{-34}) \cdot \frac{3.0 \times 10^8}{\lambda_0}$$

$$\therefore \lambda_0 = 1.25 \times 10^{-10} \text{m}$$