

理 科
「物理基礎・物理」 解答

1.

1 ${}^4_2\text{He}$

2 電子

3 86

4 222

5 3.2×10^3

6 1.0

7 $\frac{nT}{V}$

8 $\frac{2nT}{V}$

9 $\frac{5}{3}$

10 $\frac{5}{3}$

2.

問1 $\omega = \frac{2\pi}{T}$

問2 $v = 2\pi \frac{R+h}{T}$

問3 $K = \frac{GMm}{2(R+h)}$

問4 $U = -\frac{GMm}{R+h}$

問5 $K : U : E = 1 : -2 : -1$

問6 $h = \frac{gR^2}{v^2} - R$

3.

問1 0.850 m

問2 412 Hz

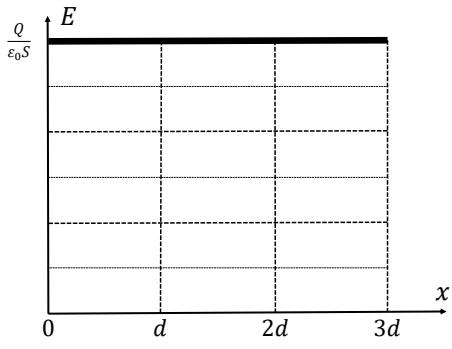
問3 0.825 m

問4 $\frac{v_s + v}{v_s - v} f_0$

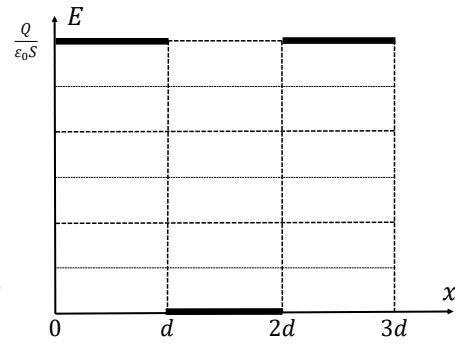
問5 $\frac{2v}{v_s - v} f_0$

4.

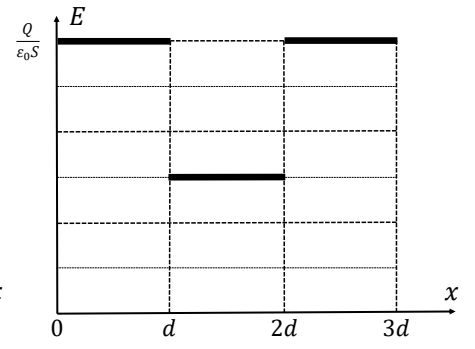
問1



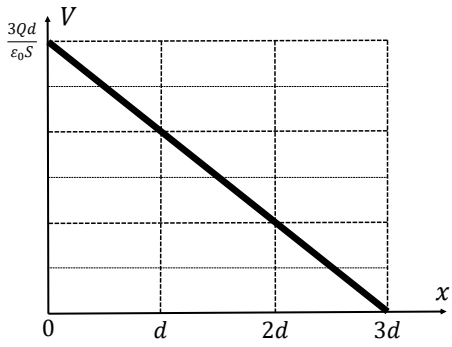
問3



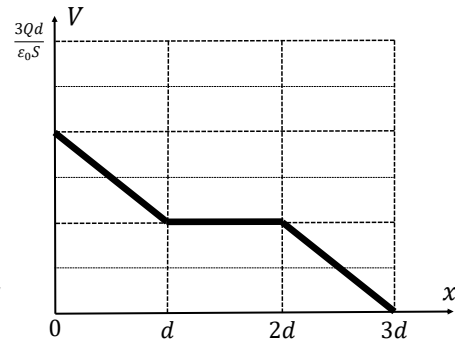
問5



問2



問4



問6

