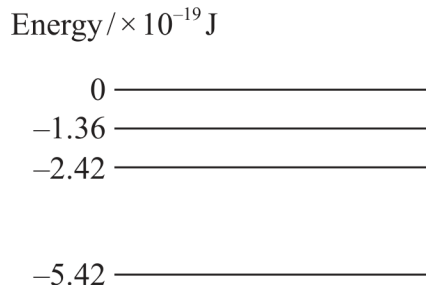


- 9 The diagram shows some of the energy levels for a hydrogen atom.



Which of the following expressions is equal to the lowest frequency of light possible from a transition between these energy levels?

- ☐ A $\frac{5.42 \times 10^{-19}}{6.63 \times 10^{-34}}$
- ☐ B $\frac{1.36 \times 10^{-19}}{6.63 \times 10^{-34}}$
- ☐ C $\frac{2.42 \times 10^{-19} + 1.36 \times 10^{-19}}{6.63 \times 10^{-34}}$
- ☐ D $\frac{2.42 \times 10^{-19} - 1.36 \times 10^{-19}}{6.63 \times 10^{-34}}$

(Total for Question 9 = 1 mark)