Reading a Bond Model After Isotope Replacement

Scoring guide · one credit per question · review written work against each rubric

Reading a Bond Model After Isotope Replacement

Question 1

Choice (2)

Q gives nine vibrations in the model interval, compared with 12 for P.

Question 2

Hydrogen-2 is a heavier isotope of hydrogen, not a different element. The model keeps the bond connection and pull unchanged. The larger mass at one end lowers the rate.

Question 3

The rate also depends on the masses at the ends. The supplied comparison changes the hydrogen mass while holding the pull the same, so the lower rate does not establish a weaker bond.

Question 4

It should show nine and 12. A combined average could be 10.5, but each molecule follows one of the two models and has one of the two individual rates.