

Exercise 0.15 – Lewis structures

Q015-01 When the Lewis structure for HCOOCH_3 is drawn how many bonding and how many lone pairs of electrons are present?

	Bonding pairs	Lone pairs
A.	8	4
B.	7	5
C.	7	4
D.	5	5

Q015-02 What is the Lewis (electron dot) structure of sulphur dioxide?

Q015-03 Butane, C_4H_{10} , propanal, $\text{C}_3\text{H}_6\text{O}$ and propan-1-ol, $\text{C}_3\text{H}_8\text{O}$ have very similar molar masses 59 ± 1 . Draw the Lewis structures of each of these molecules.

Q015-04 Hydrazoic acid can be represented by two possible Lewis structures, in which the atoms can be arranged as NNNH . Draw the two possible Lewis structures of N_3H

Q015-05 Draw Lewis structures of each of the following species, NO_2^- and NO_2^+

Q015-06 Draw Lewis structures to represent BF_3 and NF_3

Q015-07 Write two Lewis electron dot structures for the methanoate ion HCOO^-

Q015-08 Write Lewis electron dot structures for H_2NNH_2 and HNNH . What bond angle is expected for the H-N-N atoms in each molecule?

Q015-09 Draw Lewis (electron dot) structures for CO_2 showing all valence electrons.

Q015-10 Draw the Lewis structure of NCl_3 . Predict giving a reason the Cl-N-Cl bond angle in NCl_3
