

Hybr. dization → How many Things are attached to the central atom.

* Another atom OR * Lone pair of e-

H_2O
 $2(1) + 6 = 8$
 $- 4$
 \hline
 $- 4$
 \hline
 0

Diagram showing the Lewis structure of water (H₂O) with lone pairs on oxygen and bonds to two hydrogen atoms. A box highlights the structure.

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Diagram showing an atom with an s orbital and three p orbitals. Two hybrid orbitals are labeled "2 bond sites" and two non-hybrid orbitals are labeled "2 non-bond sites" (Lone pair of e-).

FC = Total val e- - (1/2 bonding e- + All non-bonding e-)

= 6 - (1/2(4) + 4)

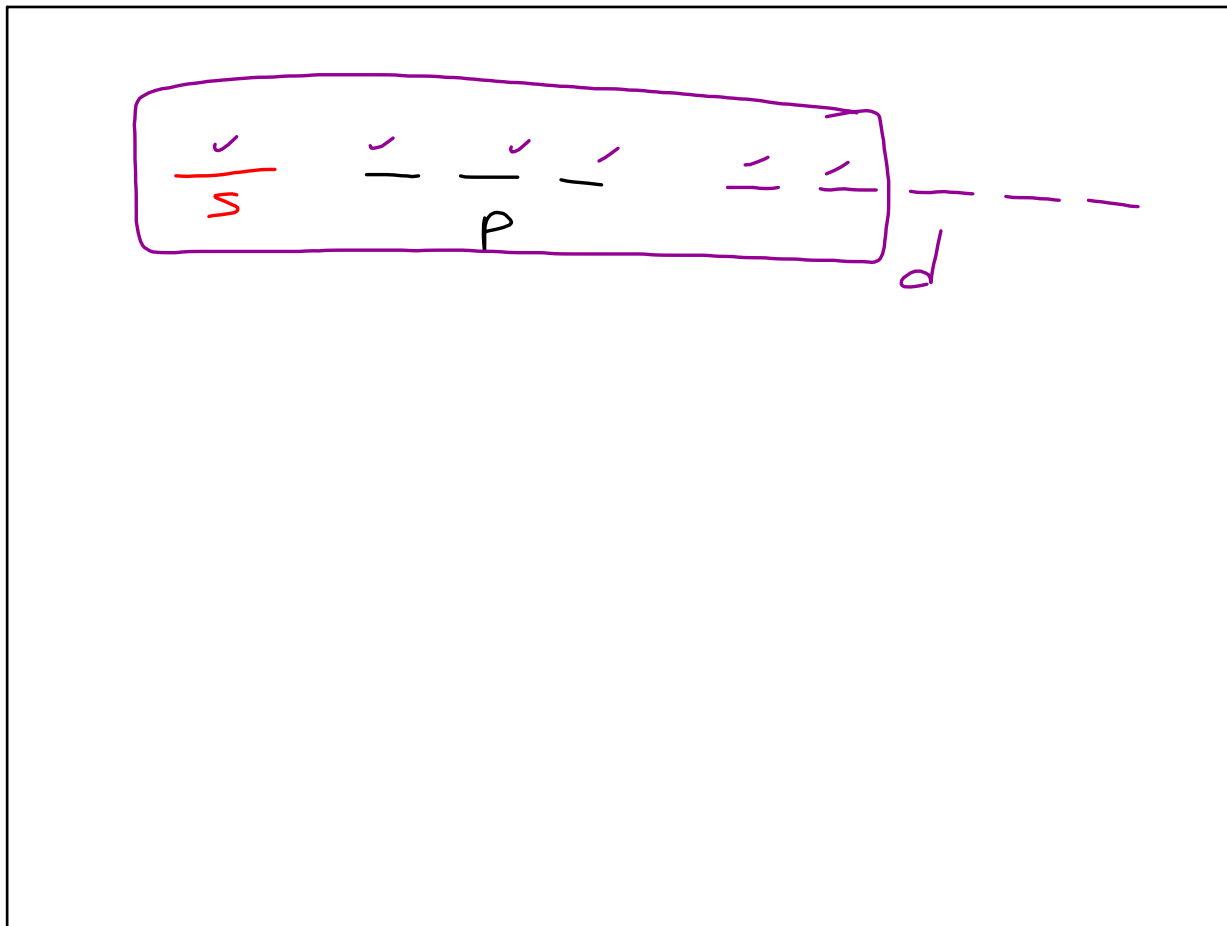
= 6 - (6)

FC = 0

4 sites sp^3 hybrid

1/5 2/p 3/p 4/p

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H_2SO_4 (H comes off of the O)

$$2(1) + 6 + 4(6) = \boxed{32} - 8 = 24 - 4 = \underline{20}$$

- 8
12
- 12
0

↑
↓
15

Around S

4 bond
0 non bond
4 sites

sp^3 hybrid
Tetrahedral
p.39

Around O

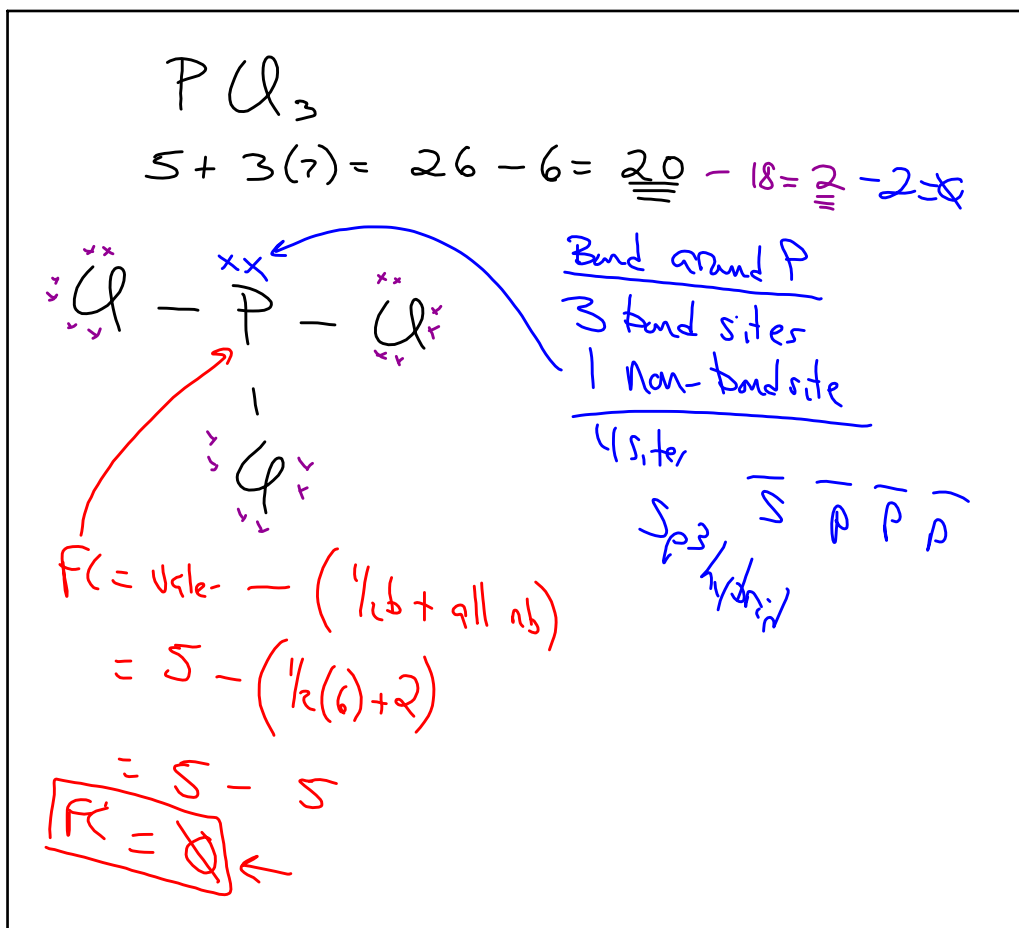
2 bond
2 non bond
4 sites

sp^3

(S)
 $FC = 6 - (\frac{1}{2}(8) + 0)$
 $= 6 - 4$
 $FC = +2$

$FC = 6 - (\frac{1}{2}(4) + 4)$
 $= 6 - 6$
 $= 0$

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