

## Answers to Exercise 5.5

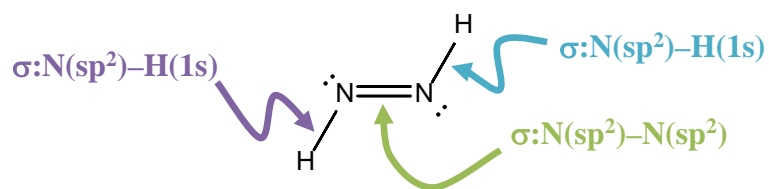
### Sigma Bonds and Pi Bonds in Valence Bond Theory

- 1.
- (a) 1 sigma bond and 0 pi bonds
  - (b) 1 sigma bond and 1 pi bond
  - (c) 1 sigma bond and 2 pi bonds

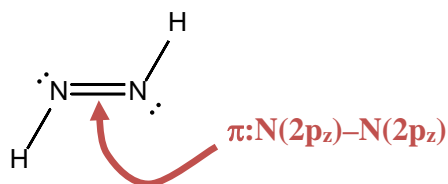
2.

(a)  $sp^2$

(b)

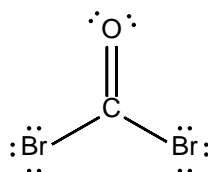


(c)



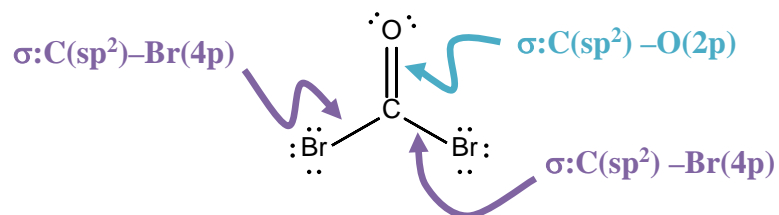
3.

(a)



(b)  $sp^2$

(c)



(d)

