



- ④  $\text{NH}_3$  4pr.
- N = [He] 1 1 1 1  
 2s 2p 2s 1 1
- 2 - linear  
 3 - trigonal planar  
 4 - tetrahedral  
 5 - trigonal bipyramidal  
 6 - octahedral
- electron geometry

- H:N:H  
 H
- 2p 1 1 1  
 2s 1 1
- sp --- 180°  
 sp<sup>2</sup> --- 120°  
 sp<sup>3</sup> 109.5°  
 sp<sup>3</sup>d --- 120°/90°  
 sp<sup>3</sup>d<sup>2</sup> --- 90°
- hybrid notation

hybrids are low energy

sp<sup>3</sup> 1 1 1 1

↑ lone pair    ↑ bonding pairs

trigonal pyramidal

bond angles