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Also: 3, 2, 0, -1/2; 5, 3, 2, -1/2; #15 quantum numbers; #75 quantum numbers

33. How many orbitals are in the $2p$ sublevel?

34. How many sublevels are contained in each of these principal energy levels?

a. $n = 1$

b. $n = 2$

c. $n = 3$

d. $n = 4$

36. Arrange the following sublevels in order of increasing energy:

$3d, 2s, 4s, 3p$

38. What is the maximum number of electrons that can go into each of the following sublevels?

a. $2s$

b. $4s$

c. $4p$

d. $4f$

e. $3p$

f. $3d$

g. $5s$

h. $5p$

56. Give the symbol for the atom that corresponds to each electron configuration.

a. $1s^2 2s^2 2p^6 3s^2 3p^6$

b. $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^6 4d^7 5s^1$

c. $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^6 4d^{10} 4f^7 5s^2 5p^6 5d^1 6s^2$

58. How many paired electrons are there in an atom of each element?

a. helium

b. sodium

c. boron

d. oxygen

Name the element being described by this quantum number set:

- a. 3, 2, 0, -1/2
- b. 5, 3, 2, -1/2

Give the quantum number set for the following elements:

- a. #15
- b. #75