

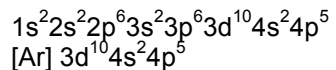
Revised August 2012



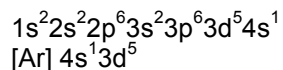
HONORS WORKSHEET 7s: ANSWERS

1.

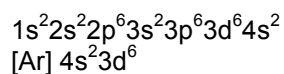
(a)



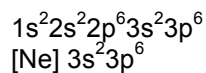
(b)



(c)



(d)



2.

(a) 2s

(b) 3p

(c) 3d

(d) All the same energy

3.

(a) d

(b) p

(c) s

(d) d

(e) p

4.

(a) Not enough information given

(b) 17

(c) $[\text{Ne}] 3s^2 3p^5$

5.

(a) Si

(b) Co

(c) Ba

6.

(a) O

(b) Na^+

(c) Si

(d) Ti^{2+}

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7.

- (a) [Ne] 3s²3p⁶
- (b) [Ar] 4s⁰3d⁴
- (c) [Ar] 4s⁰3d⁷

8.

- (a) 3d
- (b) 4s

9. Ca²⁺ and S²⁻

10.

- (a) Ca
- (b) K
- (c) B
- (d) Br
- (e) Zr

11. 1s²2s²2p⁶3s²3p⁶

12.

- (a) Ca²⁺, K⁺
- (b) S²⁻, Cl⁻

13.

1s	2s	2p	3s	3p	3d	4s	
↓↑	↓↑	↓↑ ↓↑ ↓↑	↓↑	↓↑ ↓↑ ↓↑	↑↑↑	↓↑	V
↓↑	↓↑	↓↑ ↓↑ ↓↑	↓↑	↓↑ ↓↑ ↓↑			Ar
↓↑	↓↑	↓↑ ↓↑ ↓↑	↓↑	↓↑ ↓↑ ↓↑	↓↑ ↓↑ ↓↑ ↓↑ ↓↑	↓↑	Zn

14.

- (a) 3
- (b) 0
- (c) 0

15.

- (a) Paramagnetic
- (b) Paramagnetic
- (c) Paramagnetic