Quiz 7A

1. Are all atomic spectra the same (1 points)?

No each element has a different atomic spectrum.

1. Answer the following questions about magnesium (15 points):
   1. Is it a metal, nonmetal, or semimetal? \_\_\_\_\_metal\_\_\_\_\_
   2. What group is sodium in? \_\_\_\_Alkaline earth metals
   3. How many total protons? \_\_\_\_12\_\_\_\_\_\_\_
   4. How many total electrons? \_\_\_\_\_12\_\_\_\_\_
   5. Write the complete electron configuration. \_\_1s22s22p63s2
   6. Write the full orbital diagram.

↑↓

3s

↑↓ ↑↓ ↑↓

2p

↑↓

2s

↑↓

1s

* 1. Write the core electron configuration. \_\_\_[Ne]3s2
  2. How many valence electrons? \_\_\_\_\_2\_\_\_\_\_
  3. Write the core electron configuration for Mg2+. \_\_\_[Ne]
  4. Write the core electron for Mg-. \_\_\_\_[Ne]3s23p1

1. Draw a wave function and indicate the distance of two wavelengths (2 points).

| 2λ |

1. Which has the longer wavelength radiowaves or gamma rays (1 point)? \_radiowaves\_
2. Is this week’s expeirment a wet lab or a dry lab (1 point)? \_\_\_\_dry lab\_\_\_\_\_

Quiz 7B

1. Is this week’s experiment a wet lab or a dry lab (1 point)? \_\_\_\_dry lab\_\_\_\_\_
2. Draw a wave function and indicate the distance of one wavelength (2 points).

| λ |

1. Which has the shorter wavelength radiowaves or gamma rays (1 point)? gamma rays
2. Answer the following questions about sodium (15 points):
   1. Is it a metal, nonmetal, or semimetal? \_\_\_\_\_metal\_\_\_\_\_
   2. What group is sodium in? \_\_\_\_Alkali metals
   3. How many total protons? \_\_\_\_\_11\_\_\_\_\_\_\_
   4. How many total electrons? \_\_\_\_\_11\_\_\_\_\_
   5. Write the complete electron configuration. \_\_1s22s22p63s1
   6. Write the full orbital diagram.

↑

3s

↑↓ ↑↓ ↑↓

2p

↑↓

2s

↑↓

1s

* 1. Write the core electron configuration. \_\_\_[Ne]3s1
  2. How many valence electrons? \_\_\_\_\_1\_\_\_\_\_
  3. Write the core electron configuration for Na+ \_\_\_[Ne]
  4. Write the core electron configuration for Na2-. \_\_\_[Ne]3s23p1

1. Are all atomic spectra the same (1 points)?

No each element has a different atomic spectrum.