Chapter 1 Science Quiz

Science 112
January 21, 2017

NAME: _____

1. List by name all the planets of the solar system from largest to smallest.

2. Use Newton's 2nd Law to find the acceleration of an object of mass $m = 3.5$ kg acted upon by a force of $F = 125$ N.

3. Factor the polynomial $p(x) = x^3 - 7x^2 + 2x - 1$.

4. Rationalize the denominator:
$$\frac{3x}{\sqrt{x} + 7}$$

5. Simplify the following rational function:
$$\frac{3x}{\sqrt{x} + 7}$$

6. Solve for x and y.
$$3x - 7y = 1$$
$$x + 4y = -7$$

7. Which of the following elements is not an alkali metal?

    (a) Lithium (Li)
    (b) Potassium (K)
    (c) Sodium (Na)
    (d) Lead (Pb)

8. Fill in the blank:

    (a) The atomic number of a chemical element is the number of _____ found in the nucleus of an atom of that element.
    (b) The discriminant of the quadratic polynomial ax^2+bx+c is _____.
    (c) _____ is the largest of the Finger Lakes.
    (d) The two different kind of genetic material are _____ and _____.

9. Fill in the following table

Element	Symbol	Atomic No.	Density
Gold			
Copper			
Iron			
Platinum			

10. Identify the trigonometric function whose graph is shown below.

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