***Algebra Quiz - Functions***

**A) Functions**

1.) Notation: f(x) = 2x-3. Input = x, Output = f(x) (say “f of x”, the output is a function of the input)

2.) Input = Domain = x-values; Output = Range = y-values

3.) Ways of showing functions: Mapping (shown by two ovals), Sets (shown by {ordered pairs}),

 Tables or Graphs.

4.) Determine if a mapping, set of ordered pairs, table or graph represents a function.

**🕸 For mapping, set of ordered pairs and table,**

 **Input values (values in the domain) should not be mapped to more than one**

 **output value (value in the range) in order to be a function.**

**🕸 For a graph – use vertical line test.**

5.) Give the domain and range for a mapping, set or table – use set notation, list in order from

 lowest to highest, do not repeat numbers.

6.) Give domain and range for a graph – if graph connects all points between – use an inequality

 If graph uses integer input values – use a set of values.

7.) Given a function, find the output given the input (f(-2)=?), find the input given the

 output (g(x)=24, find x).

8.) Given a graph of a function, find the output given the input or find the input given the output.

**B) PETS/STEP/PEST**

1.) Plots (graph – title, label axes, appropriate scale, include units)

2.) Equations (***function notation***) – Get from table, story or graph

3.) Tables (quantities and units)

4.) Story -identify ***independent*** and ***dependent*** variables - be creative – make it up if needed

**C) Qualitative Graphs (story graphs – speed vs. time, distance vs. time)**

1.) Match graph with description

2.) Match functions with graph (linear, quadratic, exponential)