**Unit 3 – Final (*Velocity*) Jeopardy Sample This is what your solution should look like.**

In the following problems you will be given an equation with numbers filled in.

A. Identify each known and it’s numeric value and the equation used. B. Solve the equation for the unknown.

(**Vi = 5 m/s, t = 10 s, Vf = 10 m/s, a = ? Vf = Vi + at**)

C. Write a word problem that fits the situation. D. Produce a **x vs t, v vs t, a vs t** graph.

**1)**  **100 m/s = 40 m/s + a \* 10.0 s**

**A. Variables: Vi = 40 m/s, Vf = 100 m/s, a = ??, t = 10.0 s, X = not used**

 **Equation = Vf = Vi + a \* t**

**100 m/s = 40 m/s + a \* 10.0 s**

**100 m/s – 40 m/s = a \* 10.0 s**

**60 m/s / 10.0 s = a**

**a = 6.0 m/s2**

**B.** **a = 6.0 m/s2**

**C. Realizing she is late for curfew, Sydney, who was driving at 40 m/s (she has a lead foot) accelerates for 10.0 seconds to 100. m/s. What was the acceleration of Sydney’s car as she HOPPEd she would make home in time?**

 **D.**

**+a**

**X**

**V**