**Can we look at these in the reverse order (velocity tells me \_\_\_\_\_\_\_ about acceleration, which tells me \_\_\_\_ about net force?**

**If not, why not?**

**No**

**Is the net force constant?**

**What does this tell me about acceleration?**

**What does this tell me about velocity?**

**What does this tell me about velocity?**

**What does this tell me about acceleration?**

**Yes**

**What if anything changes if the problem is 2 dimensional?**

**Kinematic equations allowed?**

**Velocity vector changes?**

**Net Force constant?**

**Yes**

**Is the acceleration constant?**

**Net Force constant?**

**It’s zero**

**Velocity vector changes?**

**Kinematic equations allowed?**

**No**

**Go to next page**

**Acceleration is NOT constant.**

**Can break into segments that are constant acceleration**

**Constantly changing acceleration**

**When is net Force constant?**

**When are kinematic equations allowed?**

**When does the velocity vector change?**

**When are kinematic equations allowed?**

**When does the velocity vector change?**

**When is net Force constant?**

**Notes to self on how to deal with problem segments: details on sketch, variable names, approach to solving parts**

**Acceleration vector is \_\_\_\_\_\_\_\_\_\_\_ at that instant.**

**Velocity vector is zero.**

**Acceleration vector is**

**Velocity vector is changing – it’s increasing speed.**

**Acceleration vector is**

**Velocity vector is changing – it’s decreasing speed.**

**Is velocity zero? Is the velocity vector changing?**

**Velocity vector is changing – it’s changing directions.**

**Acceleration vector is**

**Is velocity changing?**

**yes**

**Is acceleration zero, or non-zero?**

**What is the net force?**

**Is velocity changing?**

**Is acceleration zero, or non-zero?**

**What is the net force?**

**Strategy for using this info?**

**Strategy for using this info?**

**no**

**Is the object moving? (Look at more than just a single instant.)**

**Are we likely to need to calculate components?**

**How do we indicate direction?**

**two**

**Strategies and tools we use to solve these problems**

**How many dimensions (one or two) do we need to describe all of the force and motion variables?**

**Are we likely to need to calculate components?**

**Strategies and tools we use to solve these problems**

**How do we indicate direction?**

**one**

**Context Clues – create your own glossary**

**Here are a few clues to get you started:**

At rest =

Smooth =

Rough =

Constant speed =

**What steps do we take to identify variables and equations?**

**Steps for qualitative representation in a problem with forces**

**What kinds of things can we do for a reasonability check?**

**What steps do we use to identify when/how to calculate components of vectors?**