

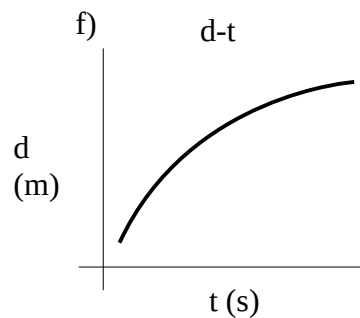
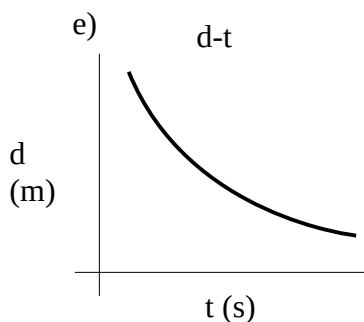
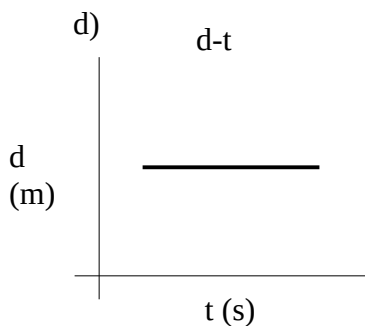
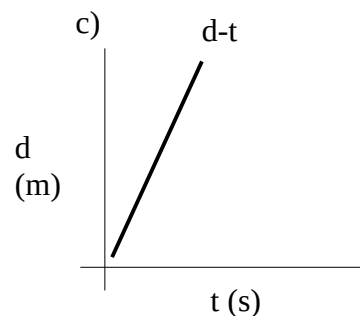
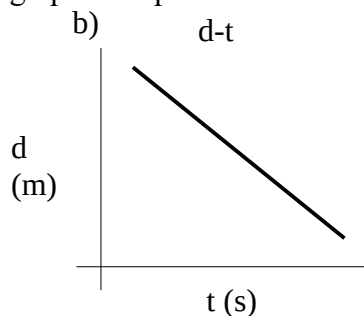
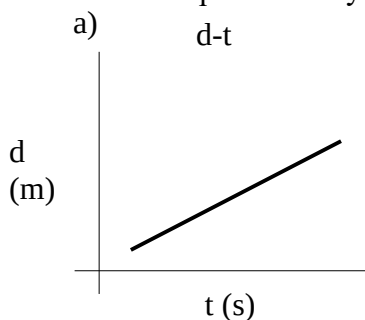
d-t & v-t Graph Worksheet

The following questions involve the interpretation of d-t (*aka position-time*) and v-t graphs. As you work through them, make sure that you keep in mind that different types of graphs show fundamentally different information. Besides reviewing Lesson 9, keep the following in mind:

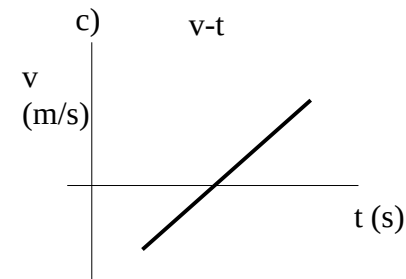
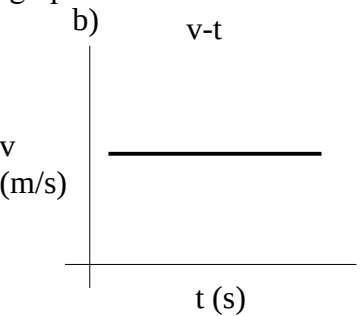
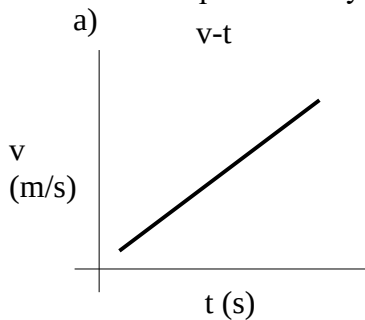
d-t Graphs
 Slope = velocity
 Area under line = no meaning

v-t Graphs
 Slope = acceleration
 Area under line = displacement

1. Each of the following d-t graphs shows the motion of a car on a street. **Describe** the motion of the car represented by each graph. Be specific!

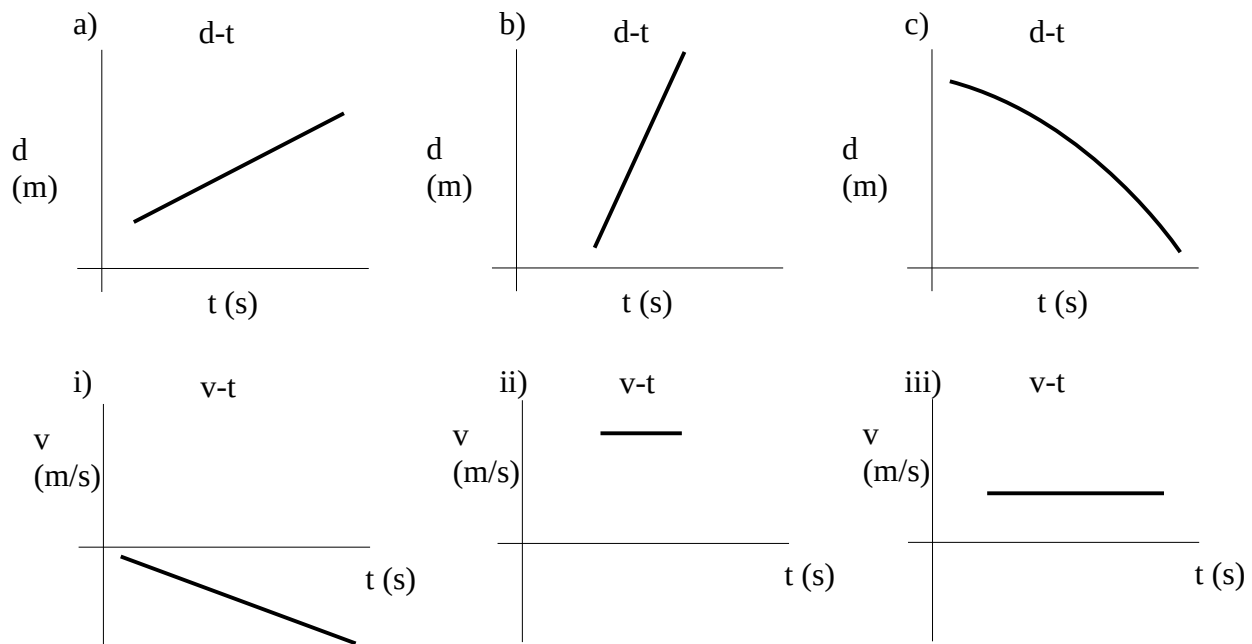


2. Each of the following v-t graphs shows the motion of a car on a street. **Describe** the motion of the car represented by each graph.



3. **Sketch** a d-t and a v-t graph that show a bunny moving forwards at a constant velocity, slowing down, stopping, and then running backwards at a very fast uniform velocity.

4. **Identify** the d-t graph that shows the same motion of the object as one of the v-t graph.



5. The following graphs show information about a toy robot moving across the floor. Using concepts like slope and area under the line, **determine**:

- the velocity of the toy during the first part of the trip (solid line) from both graphs.
- the total displacement of the toy.
- the acceleration of the toy during the end of the trip (dotted line).

