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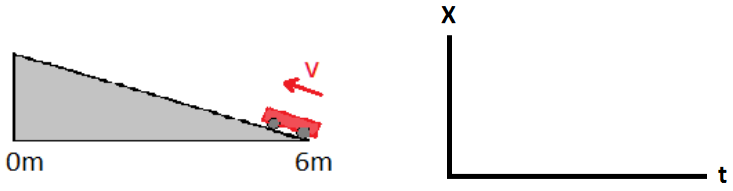
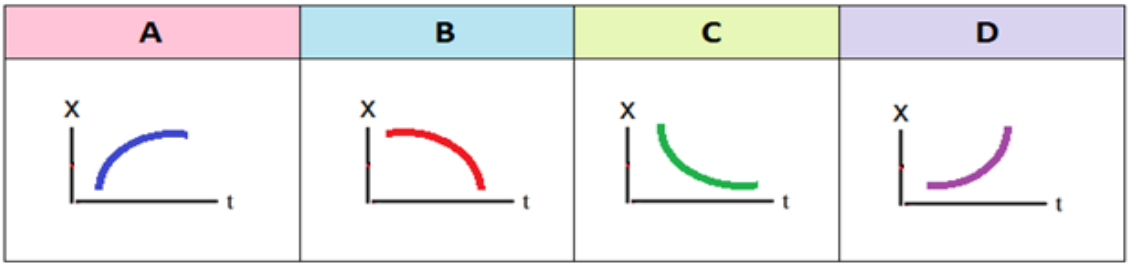
(2.03) - Accelerated Motion X-T Worksheet

1. A cart starts at the bottom of an angled ramp and is given an initial velocity in the direction shown. Position and Time data are recorded in the table. Create a qualitative (no numbers) Position vs. Time graph for the cart. Restrict your analysis to the cart moving up the ramp only (and not when it moves back down).



Use the four graphs shown below to answer questions #2 - 5



2. Which graphs show an object moving in the positive direction?
3. Which graphs show an object moving in the negative direction?
4. Which graphs show an object speeding up?
5. Which graphs show an object slowing down?

Use the graph below to answer questions #6 - 13, where the motions of two different objects are shown. Answer each question as RED, BLUE, NEITHER, or BOTH.

6. Which object sat still and did not move?
7. Which object moved with a constant velocity?
8. Which object was speeding up?
9. Which object was slowing down?
10. Which object moved forward (positive direction)?
11. Which object moved backward (negative direction)?
12. If this were a race, which object was given a head start?
13. Who won the race?