Name:	Friday, February 29, 2008
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1. A car travelling north enters a curve at 30m/s. After 20 seconds the car is traveling east moving at 20m/s. Find:
   a) The total distance the car travels in the 20 seconds **[2]**
   b) The total displacement in the 20 seconds **[3]**
   c) The velocity at the beginning and end of the interval **[1]**
   d) The change in velocity over the entire interval **[3]**
   e) The **average** acceleration over the entire interval **[2]**
   f) The **centripetal** acceleration (assuming a circular curve) at the beginning and end of the interval **[2]**

2. A kid on a bike wants to jump a narrow creek that's 1.50m wide. There are two ramps on either side at the same height and the same angle of 30 degrees. Determine the initial velocity the kid must have in order to jump the ramp determine the max height. **[7]**