Name: _____ Date: _____

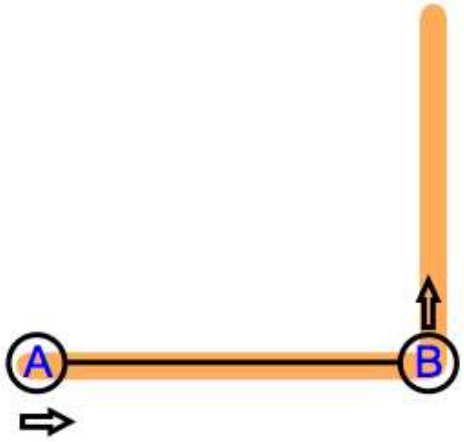
Lab: Related Rates **PMI Calculus**

Required Materials:

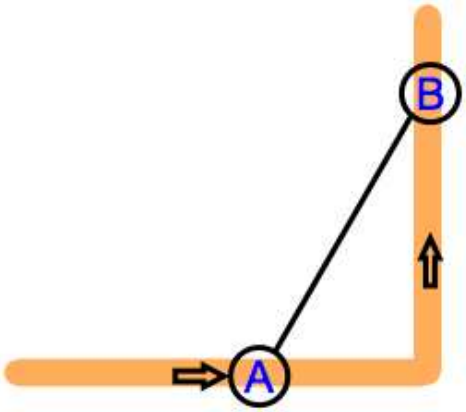
- 1 long rope/cord/string (at least 15 feet for the best display)
- Masking Tape
- Student groups: 3-4

1. Set up the masking tape on the floor to form a right angle. Make the length of two segments (2 pieces of masking tape) equivalent to the length of the long rope/cord/string.

2. Student A starts at one end of the tape and student B starts at the corner. Each student holds one end of the rope until it is taut.



3. Student B: Walk at a CONSTANT and slow pace forward.
   Student A: Walk at whatever pace is needed to keep the rope taut.



   Remaining group members: Watch Student A's rate of change as they travel the path. Observe what happens. Repeat the steps multiple times.

4. Answer the question below:
   a) Did the rate of either student change throughout this experiment? If so, which one? And how did it change?

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