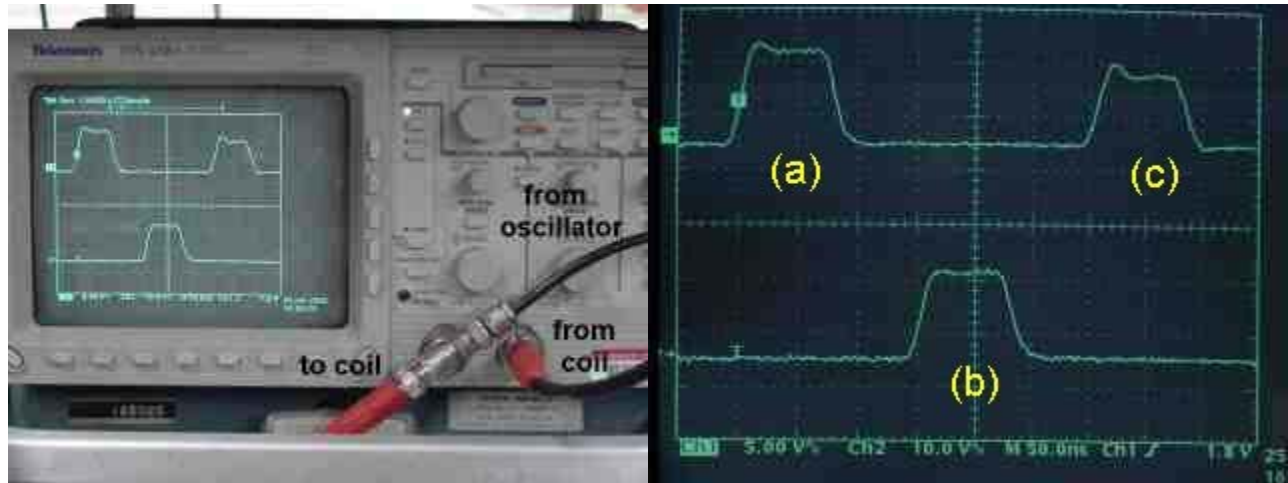
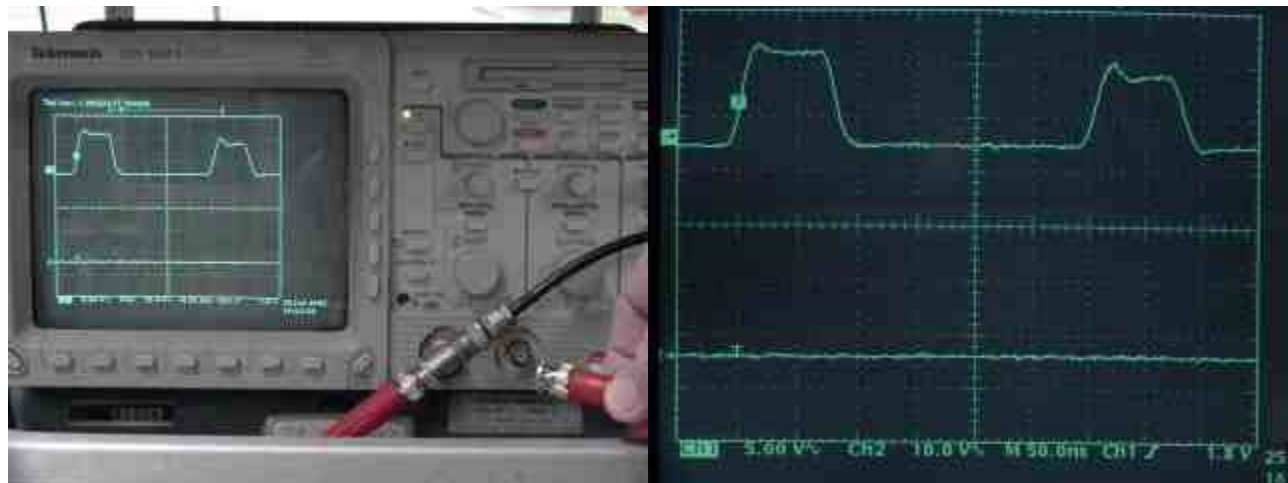


## Answer #227

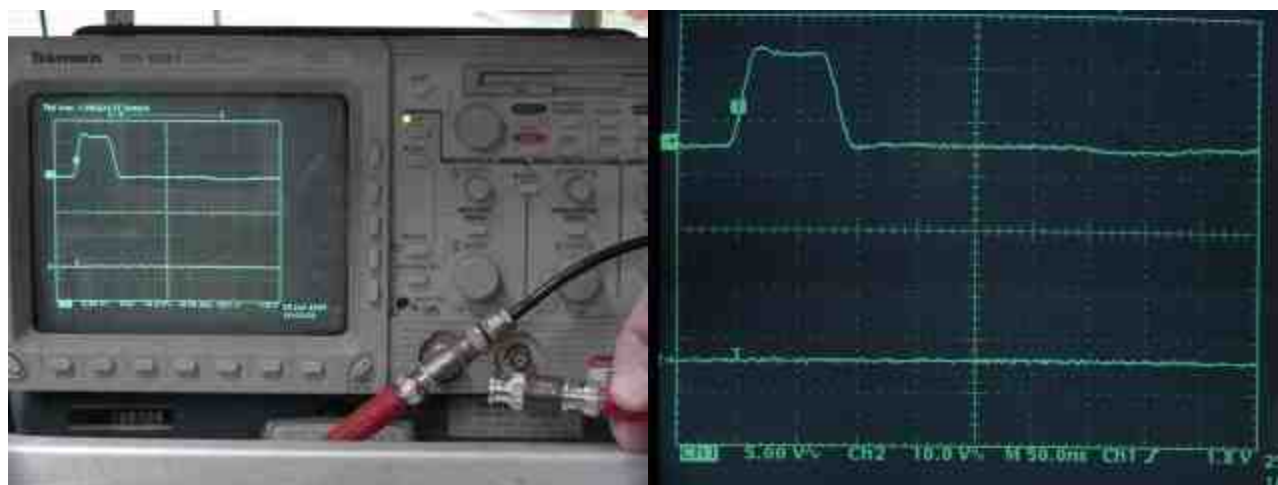
We start with the original configuration:



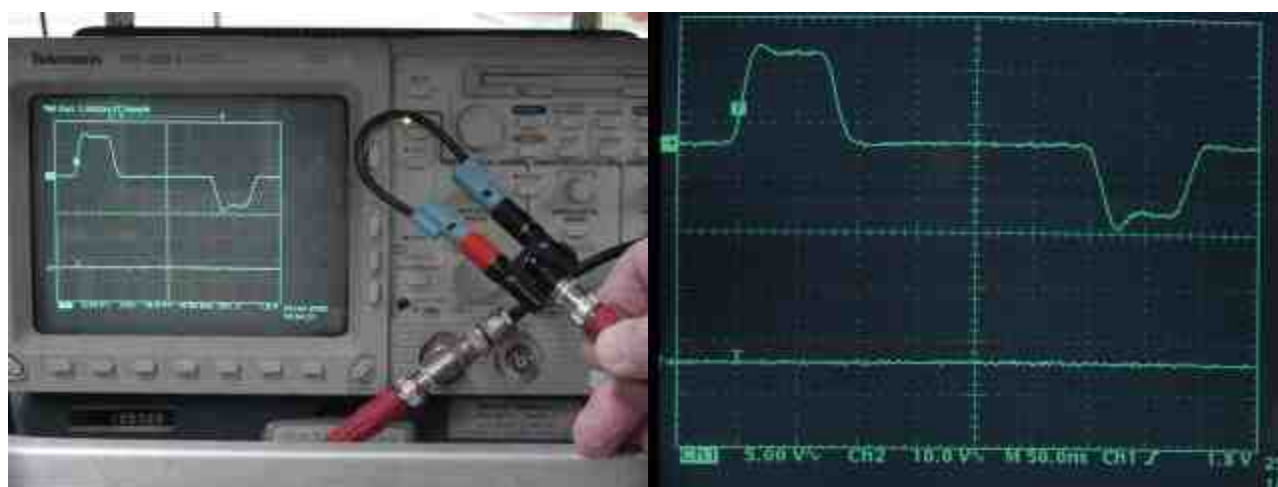
Part 1 (see below): The answers are (a) pulse "a" will be the same, (b) pulse "b" will disappear, and (c) pulse "c" will remain the same. The pulse does not see the oscilloscope on the far end of the cable, so removing the cable from the oscilloscope will have no effect on pulse "c," while removing the end from the oscilloscope will eliminate pulse (b)!



Part 2 (see below): The answers are (a) pulse "a" will remain the same, (b) pulse "b" will remain gone, and (c) pulse "c" will disappear. The terminator absorbs the pulse at the far end, in much the same way that an absorber or dashpot can absorb a SLINKY spring pulse or a compressional air pulse.



Part 3 (see below): The answers are (a) pulse "a" will remain the same, (b) pulse "b" will remain gone, and (c) pulse "c" will re-appear but will be inverted. Shorting the end of the coaxial cable has the same effect as the open end of an air column for a pulse of sound, the free end of a SLINKY spring for a longitudinal pulse, or the fixed end of a stretched string or SLINKY spring for a transverse pulse.



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given on the [Lecture-Demonstration Home Page](#).