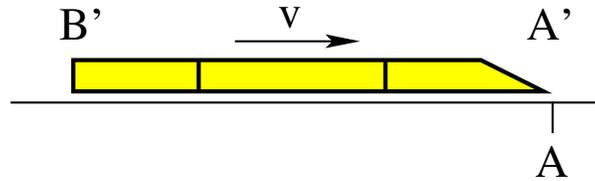


[mex211] TGV

A French high-speed train of proper length ℓ_0 travels at constant velocity v relative to the ground. The front end A' of the train passes point A on the ground at $t = t' = 0$, when a light signal is sent from A' to the tail end B' of the train.

- (a) Find the times t_1 and t'_1 when the signal reaches B' as measured in the two frames.
- (b) Find the times t_2 and t'_2 when the point B' passes point A as measured in the two frames.



Solution: