# Re: Tree Paradox

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t'=gamma(t−vx/cc)

You say gamma = 3 in the first case.

So t1' = 3(t1−v x1 /cc);
t2' = 3(t2−v x2 /cc);

x1, t1 represents the position where and time when the axe strikes the top of the tree

x2, t2 represents the position where and time when the axe gets to the bottom of the tree.

t1', and t2' represent the time passed for the tree and will be represented by the 120 rings.

The two events are timelike, meaning they will appear to have the shortest separation in the reference frame where the two events occur at the same point in space−−the reference frame of the tip of the axe.

A single set of observers would see the tree coming through the scene, splitting itself on the stationary axe.

A few sets of observers (those with velocity between the velocity of the tree and the axe) would see the axe and the tree approaching one another. This group would be greatly outnumbered by the others.

Most possible reference frames are outside those finite limits; either moving down, faster than the axe, or up, faster than the tree.

Observers moving down, faster than the axe, see the axe receding while the tree overtakes the axe.

Observers moving up, faster than the tree, see the tree receding as the axe overtakes it.

Either way, both the time separating the events, and the space separating the events is increased.

Galileo could have told you that the space separating the events was much greater if not viewed from the frame of the axe.

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