

Week 11 (11/25/02)

**Break or not break?**

Two spaceships float in space and are at rest relative to each other. They are connected by a string. The string is strong, but it cannot withstand an arbitrary amount of stretching. At a given instant, the spaceships simultaneously (with respect to their initial inertial frame) start accelerating (along the direction of the line between them) with the same acceleration. (Assume they bought identical engines from the same store, and they put them on the same setting.)

Will the string eventually break?

