

15.12: A, B and C

A , B and C were three characters in the Canadian humorist Stephen Leacock's essay on *The Human Element in Mathematics*. " A , B and C are employed to dig a ditch. A can dig as much in one hour as B can dig in two..."

We can ask A , B and C to come to our aid in a *modified version* of the twins' problem, for we can arrange all three of them to be moving with constant velocities relative to each other. It goes like this (figure XV.14):

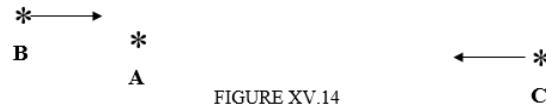


FIGURE XV.14

The scenario is probably obvious from the figure. There are three events:

1. B passes A
2. B meets C
3. C meets A

At event 1, B and A synchronize their watches so that each reads zero. At event 2, C sets his watch so that it reads the same as B 's. At event 3, C and A compare watches. I shall leave the reader to cogitate over this. The only thing I shall point out is that this problem differs from the problem described as the Twins Paradox in two ways. In the first place, unlike in the Twins Paradox, all three characters, A , B and C are moving at constant velocities with respect to each other. Also, the first and third events occur at the same place relative to A but at different places referred to B or to C . In the twin paradox problem, the two events occur at the same place relative to both frames.

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