

Challenge 89: Particle Problem

In the Nosbor Model of Particle Physics (sadly disproved by all scientific evidence in THIS dimension, but true in other dimensions) there are three types of fundamental particle of equal size: the woozleino, the turnipo, and the bulchon.

When two different particles collide, the Nosbor Model says that they will turn into two particles of the third type. For instance, when a turnipo and a bulchon collide, two woozlinos are produced.

If two particles of the same type collide, they produce two particles of the other two types. For example, if two bulchons collide, a turnipo and a woozleino are produced.

In a particle colliding machine, there are 30 particles in all: 15 woozleinos, 7 turnipos, and 8 bulchons. The particles are left to collide.

Can there be at any point 30 woozleinos in the machine?

From what starting conditions could you at some point have 30 woozleinos in the machine?