# Linear algebra week 1 – extra exercises

(just for fun, not obligatory)

1.

A captain and his ship are together 70 years old.

The captain is exactly two times as old as the ship was at the moment at which the captain was equally old as the ship is right now.

How old is the captain, and how old is his ship?

2.

Bob is equally old as Alice will be at the moment at which Bob is twice as old as Alice was when Bob was half as old as the sum of their ages.

Alice is just as old as Bob was at the moment, at which Alice was half as old as she will be in 20 years from now.

How old are Alice and Bob now?

**Hint: formulate the statements as a set of linear equations, and solve the set of linear equations.**