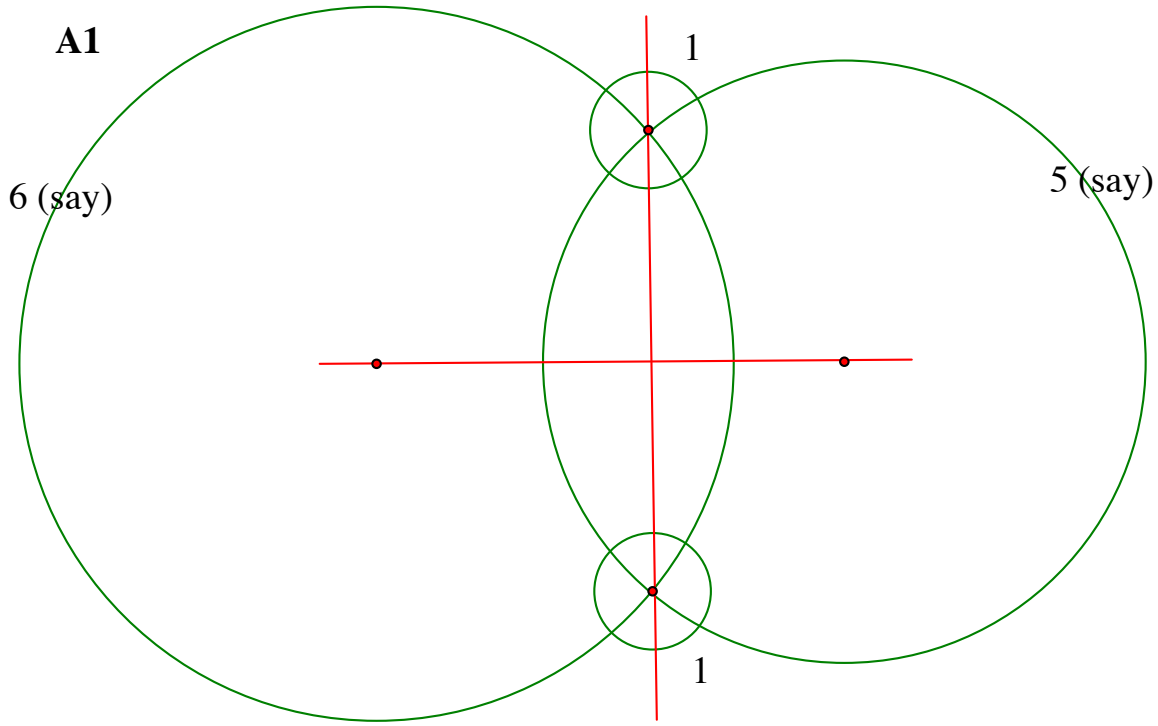
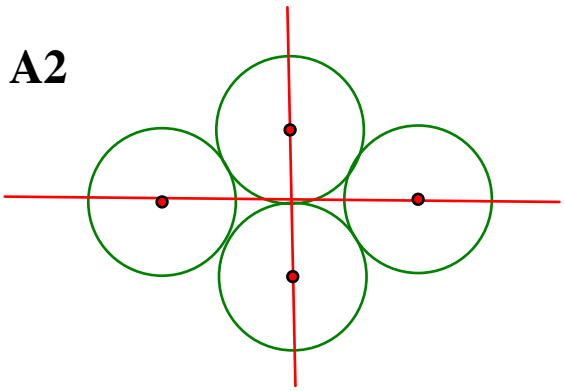
A1, **A2**, **A3** These are all based on the kite (of which the rhombus is a special case).
A1 is the standard straight edge-&-compass construction (except that one would not need different radii for the larger circles), using the small wheels only to mark points.
In **A3** the dissimilar circles can overlap, touch or not meet at all.
This is also true of any opposite pair in **A2**.

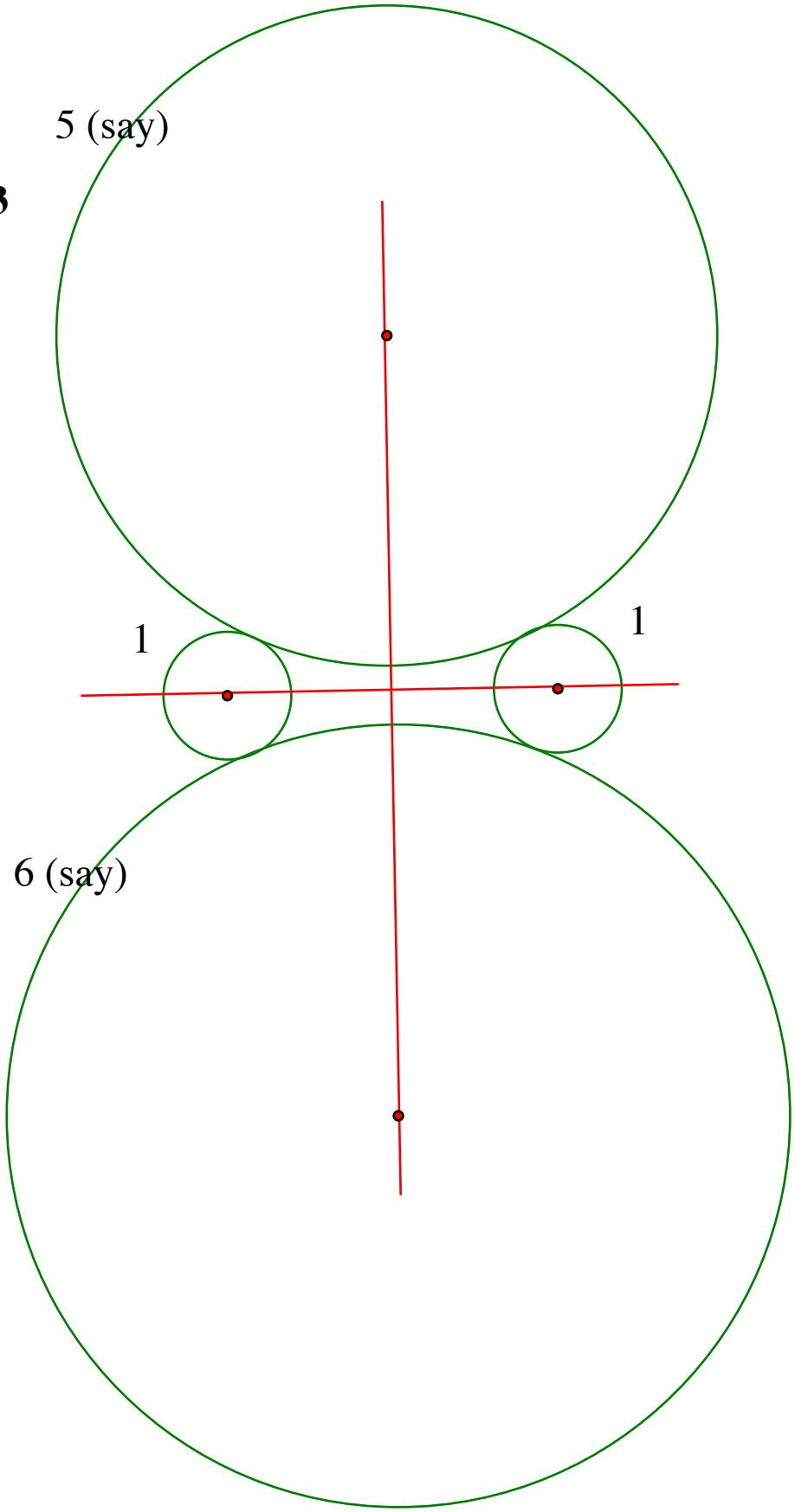
B This is based on the 1-2-$\sqrt{3}$ triangle. The dashed blue line is a sighting line.

C1, **C2**, **C3** These are wheel constructions which could not be realised with straight edge-&-compass. They are based on the 3-4-5 triangle.

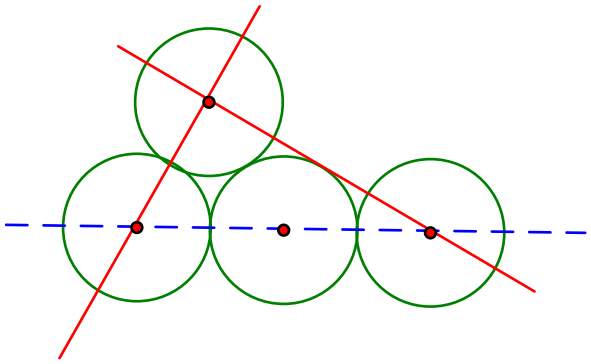




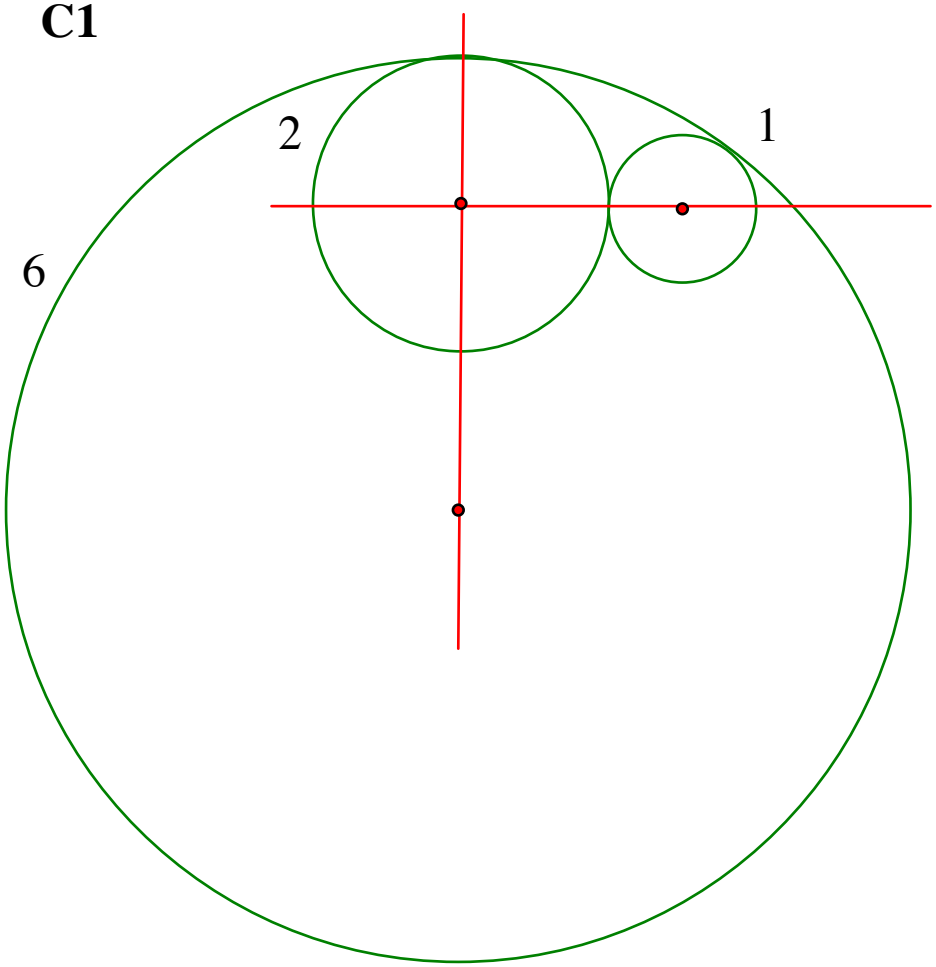
A3

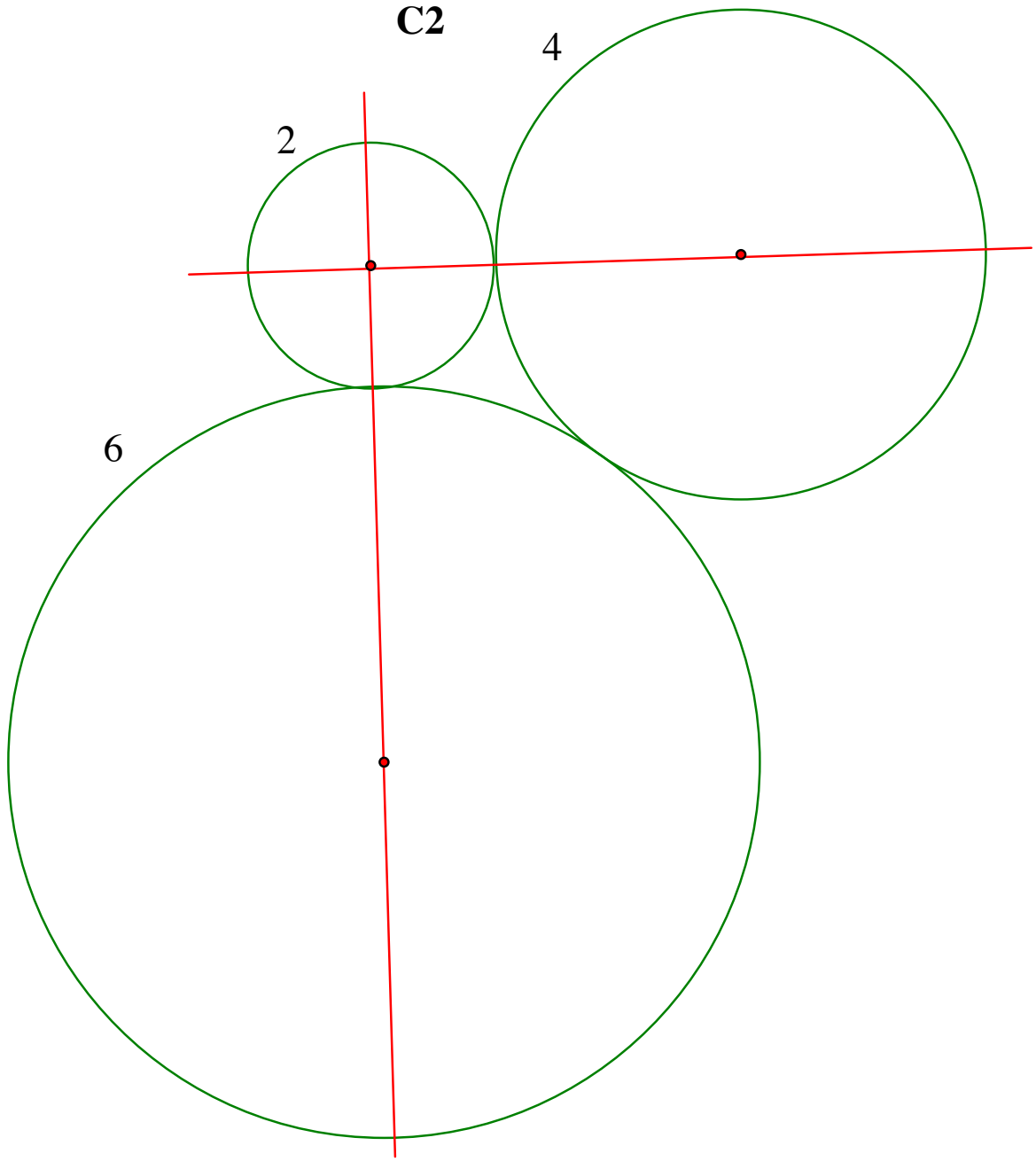


B



C1




C2
4
2
6

C3