1. Same initial conditions as yesterday.

**ODE45**.

Inertial CS:

Diagram

Description automatically generated

Rotating CS:

Table

Description automatically generated with low confidence

**ODE113.**

Inertial CS:

Diagram

Description automatically generated with medium confidence

Rotating CS:

Graphical user interface, chart, application

Description automatically generated

This is probably because the spacecraft gets too close to the center of the Moon, thus experiencing great gravitational acceleration. And that is why it is very sensitive to the integration method.

2. Below is an example of a circular orbit around the Moon.

**ODE45**.

Inertial CS:

A picture containing text

Description automatically generated

Rotating CS:

**Chart

Description automatically generated**

**ODE113.**

Inertial CS:

A picture containing chart

Description automatically generated

Rotating CS:

Graphical user interface, chart

Description automatically generated

For some reason ODE45 doesn’t work as intended, but ODE113 shows good results as expected.