

- Introduction to Week Five
- Initial Value Problems
- Systems of Differential Equations
- Initial Value Problems in MATLAB
- Boundary Value Problems
- Quiz
- Programming Assignment: The Two-Body Problem

- ✓

Video:

The Two-Body Problem (Part A) | Lecture 58

9 min
- ✓

Reading:

Circular orbits

10 min
- ▶

Video:

The Two-Body Problem (Part B) | Lecture 59

10 min
- 🔗

Ungraded External Tool:

Two-Body Problem (audit)
- 🔒

Reading:

Reference Solution to "Two-Body Problem (audit)"

1 min
- 🔗

Graded External Tool:

Two-Body Problem

1h
- 🔒

Reading:

Reference Solution to "Two-Body Problem"

1 min

Circular orbits

Consider the two-body problem where the solution for the relative coordinates is a circular orbit of unit radius, that is,

$$\mathbf{r} = \cos(\omega t)\mathbf{i} + \sin(\omega t)\mathbf{j}.$$

Sketch the orbits of m_1 and m_2 for (a) $m_1 = m_2$ and (b) $m_1 = 3m_2$.

✓ Completed

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