September 15, 2023 MSE 2101 topics

• Examples:

- What is the orbital period of Jupiter if it orbits at 5.2au?
- What is the distance to Pluto if it orbits the Sun in 250 years?
- What would Earth's orbital period be if the Sun were twice as massive?
- $^{\circ}$ What is the gravitational acceleration on Earth's surface? The mass of Earth is 6×10^{24} kg, and its radius is 6400 km. Express your answer in m/s².