



IV. celestial mechanics

- i. ptolemy, copernicus and galileo
- ii. kepler's laws
 - a. planetary distances
 - b. kepler's first law
 - c. kepler's second law
 - d. kepler's third law
- iii. newton's laws
 - a. newton's laws of motion
 - b. newton's law of gravitation
 - c. newton's derivation of kepler's laws
 - d. orbital motion
- iv. example problems