

Exam 2 Review

Exam 2 will cover relative motion, 2D kinematics (e.g. circular motion), forces (tension, friction, etc), and of course illustrations of $\vec{F}_{net} = m \vec{a}$.

Relative motion

- Read text (chapter 4 – section 3)
- Review relative motion tutorial and tutorial homework (e.g composition of the velocities)

2D kinematics:

- Read text (chapter 4 – sections 1, 2, 4, 5, 6)
- Review motion in 2D tutorial and tutorial homework (e.g. tangential and normal accelerations)
- Circular motion: angular velocity and acceleration, connection with linear velocity and acceleration

$\vec{F}_{net} = m \vec{a}$: (the MAIN topic of the exam!)

- Read chapters 5 through 8
- Review all of the tutorials and homework tutorials related to forces: FBD, 3rd law, tension.
- Analysis of a dynamics problem:
 - FBD
 - write down $\vec{F}_{net} = m \vec{a}$ as a vector equation
 - Choose the x and y axes.
 - Write $\vec{F}_{net} = m \vec{a}$ in component form
 - Solve for the unknowns

And of course also review

Lab experiments (there could be questions related to an experiment done in the lab)

MasteringPhysics problems, but there won't be any lengthy computational questions.

And for more practice, you can use the workbook chapters posted on the homework page.

Good luck and study well!