

PASS MOCK EXAM – *FOR PRACTICE ONLY*

Course: ECOR 1101

Facilitator: Hailey Quiquero

Dates and locations of mock exam take-up:

Sun. Nov. 3 @ 3:00 PM,

Mon. Nov. 4 @ 6:00 PM

– Locations TBD, check cuLearn for Updates!

IMPORTANT:

It is **most beneficial** to you to write this mock midterm **UNDER EXAM CONDITIONS**. This means:

- Complete the midterm in **3** hours.
- Work on your own.
- Keep your notes and textbook closed.
- Attempt every question.

After the time limit, go back over your work with a different colour or on a separate piece of paper and try to do the questions you are unsure of. Record your ideas in the margins to remind yourself of what you were thinking when you take it up at PASS.

The purpose of this mock exam is to give you practice answering questions in a timed setting and to help you to gauge which aspects of the course content you know well and which are in need of further development and review. Use this mock exam as a **learning tool** in preparing for the actual exam.

Please note:

- Come to the PASS session with your mock exam complete. There, you can work with other students to review your work.
- Often, there is not enough time to review the entire exam in the PASS session. Decide which questions you most want to review – the Facilitator may ask students to vote on which questions they want to discuss.
- Facilitators do not bring copies of the mock exam to the session. Please print out and complete the exam before you attend.
- **Facilitators do not produce or distribute an answer key for mock exams.** Facilitators help students to work together to compare and assess the answers they have. If you are not able to attend the PASS session, you can work alone or with others in the class.

Good Luck writing the Mock Midterm!!

DISCLAIMER: PASS handouts are designed as a study aid only for use in PASS workshops. Handouts may contain errors, intentional or otherwise. It is up to the student to verify the information contained within.

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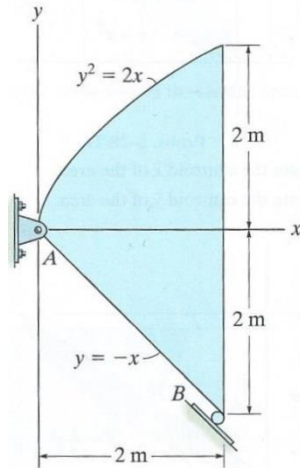
PEER ASSISTED STUDY SESSIONS

Facil: Hailey Quiquero
Email: hailey.quiquero@carleton.ca

Course: ECOR 1101 A
Office: ML 409

Week: 7 – November 3 & 4
Office Hours: Tues. 4:30-5:30

1. Determine the centre of gravity of the steel plate.
2. Given that the plate has a thickness of 0.3 m and a density of 7850 kg/m^3 , determine the support reactions at A and B.



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Source: R.C. Hibbeler. Engineering Mechanics: 13th Edition. Pearson Prentice Hall, Pearson Education.

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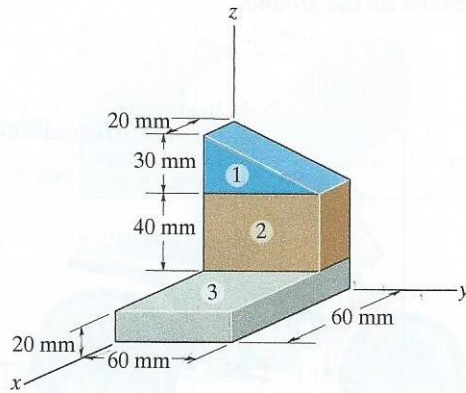
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3. Find the centre of mass of the block given the following data:



Section	Density (Mg/m^3)
1	2.70
2	5.70
3	7.80

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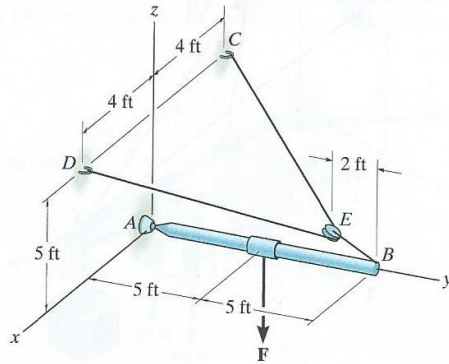
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4. a) Determine the maximum force F that can be applied to the boom, given that the maximum tension the cable CED can handle is 800 lb.
b) Determine the support reactions at the ball-and-socket joint A



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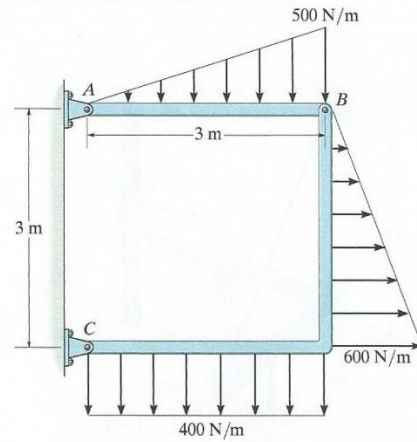
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5. Determine the support reaction forces at the pins A and C of the frame.



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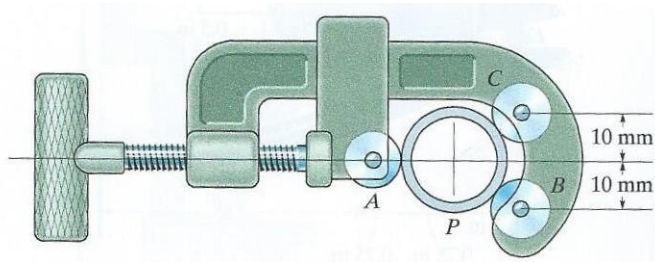
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6. The radius of the pipe P is 10 mm and wheels A B and C each have a radius of 7 mm. The normal force of wheel A on the pipe is 80 N.
- Determine the normal forces of wheels B and C on the pipe P.
 - Compute the reaction forces of the pin on the wheel at C.



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