

King Fahd University of Petroleum & Minerals  
CIVIL ENGINEERING DEPARTMENT

CE 201 STATICS (Section 8)  
Second Semester 1424-25 / 2004 (032)

H.W. # 3

**Due** on Sunday 16-1-1425 / 7-3-2004 (any time)

**Deadline** for submission: Monday 17-1-1425 / 8-3-2004 (**before you sit in class**)

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- 1-\* Solve problem 3-11 (p.92) in the textbook, but let the  $30^\circ$  angle be  $25^\circ$  and the 60-lb tension in  $AB$  be 100 lb. [Secs. 3.1- 3.3] (15 pts.)
- 2- Solve problem 3-16 (p.93) in the textbook, but let the 20-kg mass be 40 kg and  $F = 200$  N. [Secs. 3.1- 3.3] (20 pts.)
- 3- Solve problem 3-32 (p.95) in the textbook, but let the 10-lb weight be 18 lb. [Secs. 3.1-3.3] (20 pts.)
- 4-\* In Fig. P4 below, determine the **maximum allowable** force **P** if the *maximum allowable* tension in cables  $CA$  and  $CB$  is 500 N. [Secs. 3.1-3.3] (20 pts.)
- 5- Solve problem 3-41 (p.104) in the textbook, but let the 3-m coordinate be 4 m, the  $30^\circ$  angle be  $20^\circ$ , and  $F_5 = 600$  N. [Sec. 3.4] (25 pts.)

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\* You can discuss the solutions of these problems with your colleagues or other students, but **at the end you have to solve and understand them yourself**. You have to do the other problems by yourself only. *Of course you can seek my help anytime in the homework and in anything else.*

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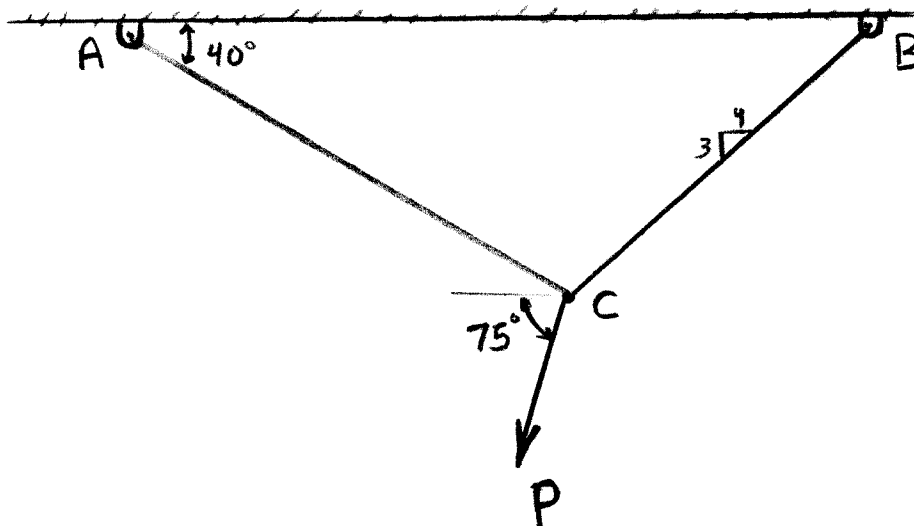


Fig. P4

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Review the **guidelines for submitting homework assignments** given to you in class **BEFORE** you start solving and writing the homework. **DO NOT** SUBMIT THE HOMEWORK IF YOU DO NOT FOLLOW THESE GUIDELINES.