

King Fahd University of Petroleum & Minerals
CIVIL ENGINEERING DEPARTMENT

CE 201 STATICS (Sections 4 & 5)

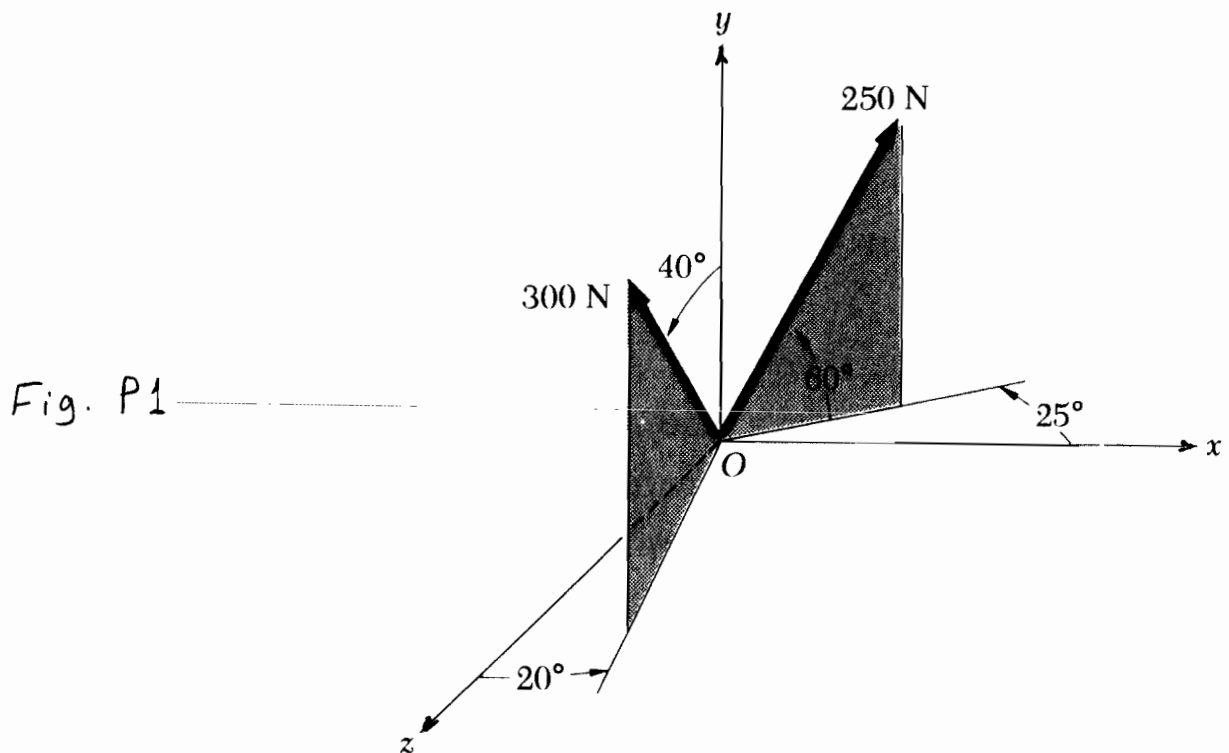
First Semester 1428-29 / 2007-08 (071)

H.W. # 2

Due on Sunday 11-9-1428 / 23-9-2007 (any time)

Deadline for submission: **Monday 12-9-1428 / 24-9-2007 (before you sit in class)**

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- 1- 1- Determine the value and direction of the resultant of the two forces shown in Fig. P1 below. [Secs. 2.5, 2.6] (25 pts.)
- 2- In Fig. P2 below, the tension is 10 kN in cable AB and 7.5 kN in cable AC. Determine the magnitude and direction of the resultant force exerted at A by the two cables. [Secs. 2.7, 2.8] (30 pts.)
- 3- Determine the angle formed by cables AB and AC in Fig. P3 shown. [Sec. 2.9] (15 pts.)
- 4- In Fig. P4 shown, the tension in cable BC is 280 lb. Determine
a) the angle between cable BC and BA,
b) the projection on BA of the force exerted by cable BC at point B by
i- utilizing the result of part (a) above,
ii) the general method (i.e., assuming the angle in (a) is not known/found). [Sec. 2.9] (30 pts.)
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Do your work yourself!! Remember that the homework carries 20% of the course grade; in addition, *solving it is the best way to understand the subject.* Of course, you can seek my help anytime in the homework as well as in anything else.

As an engineer, 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. Cheating, copying, etc. is!!!!!!

Fig. P2

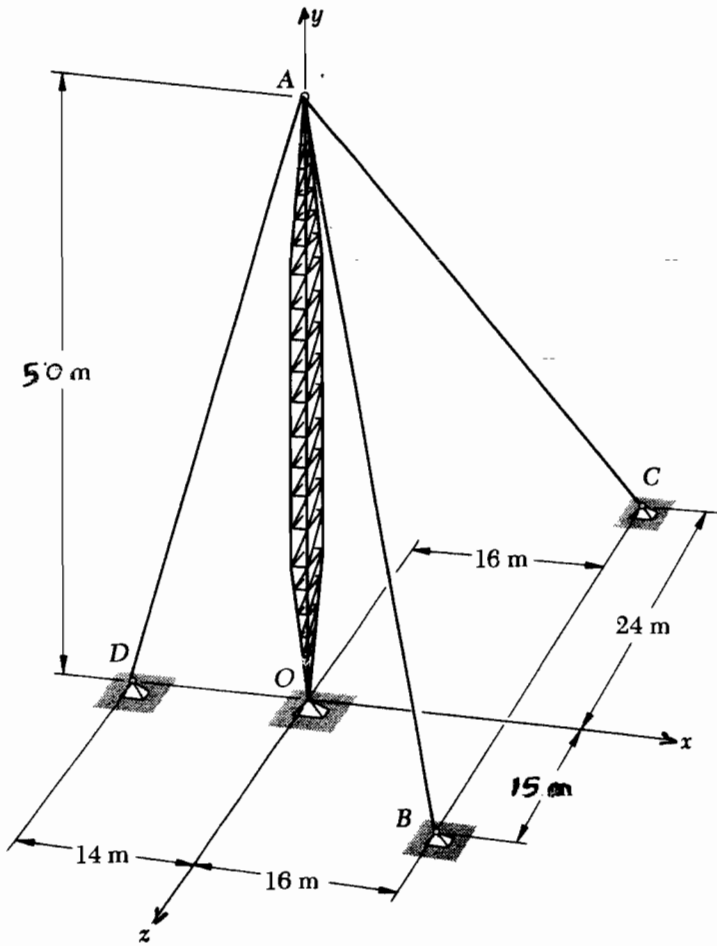
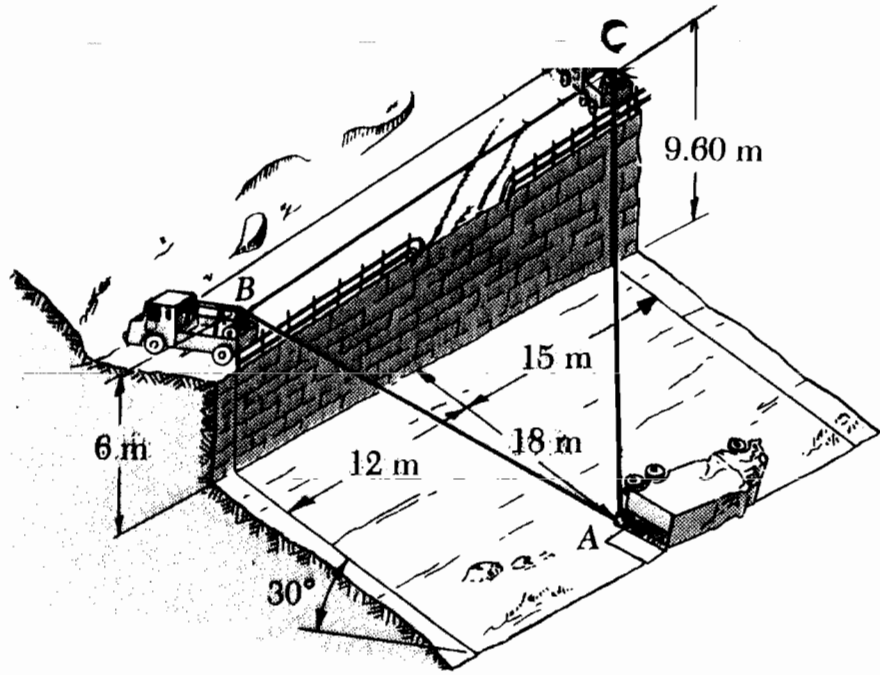


Fig. P3

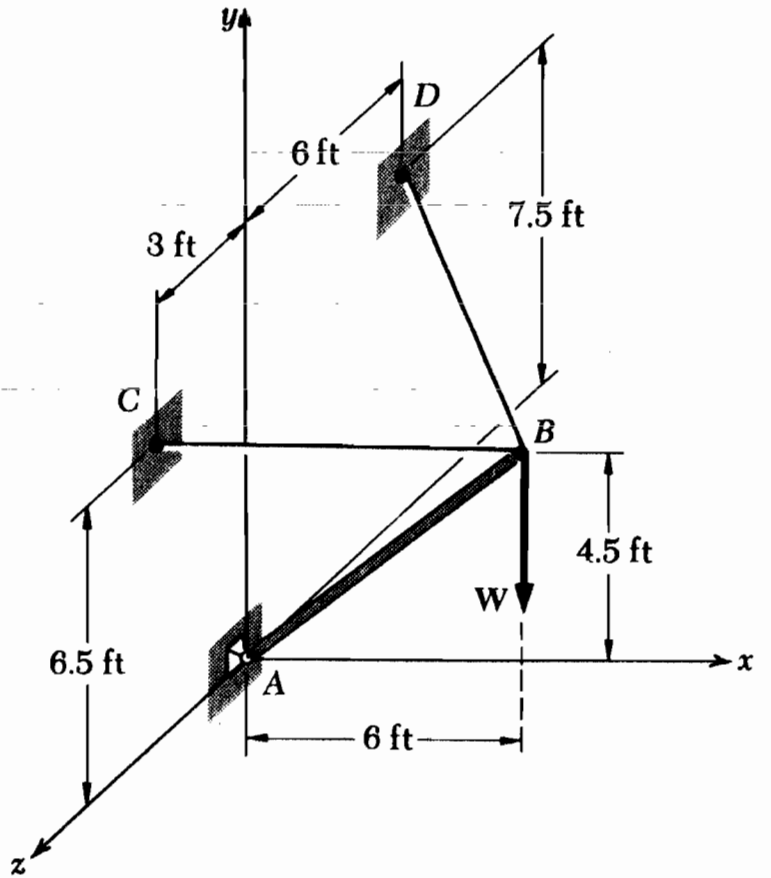


Fig. P4