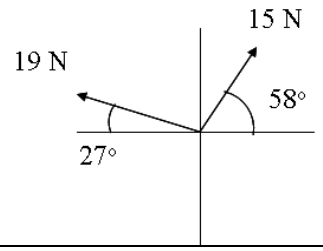
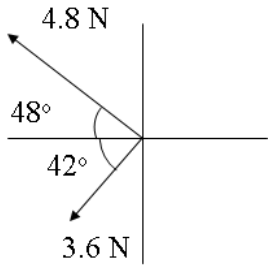
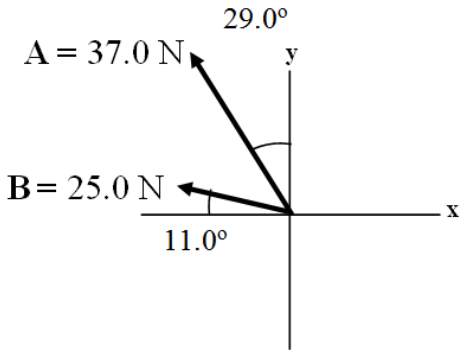
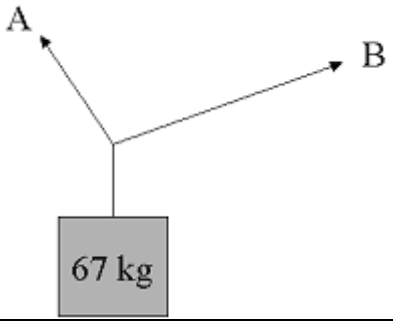
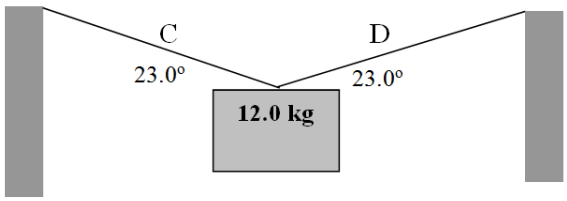
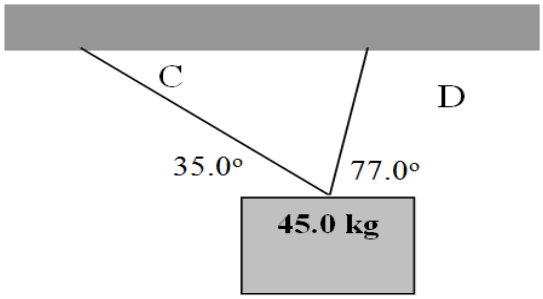
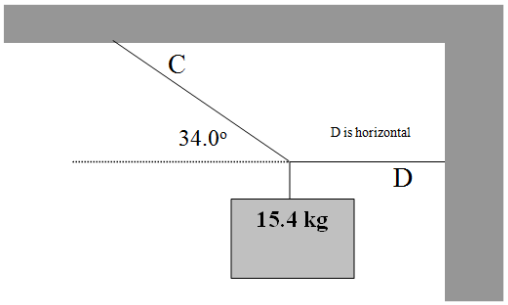
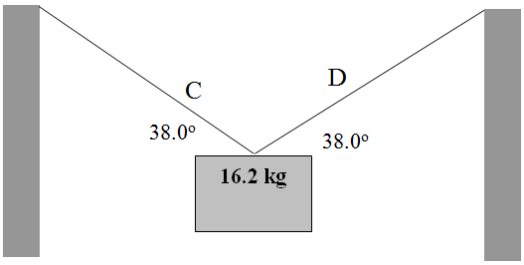
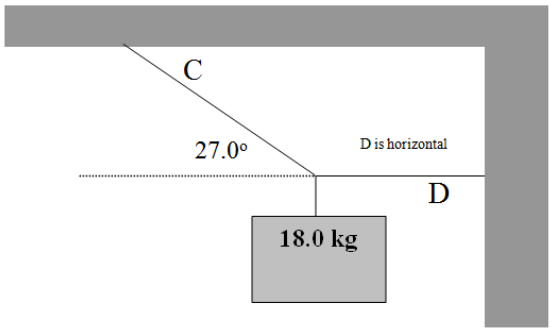
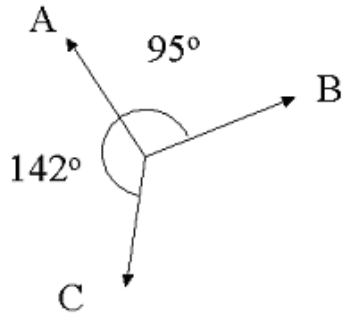
Translational Equilibrium 9.1

1. 	Find the third force (the equilibrant) that would prevent the system from accelerating. 23.16 N At 292.8° Trig angle. (22.8° to the right of the -y axis)
2. 	Find the third force (the equilibrant) that would prevent the system from accelerating. 6.000 N At 348.9° Trig angle. (11.1° below the +x axis)
3. 	Find the third force (the equilibrant) that would prevent the system from accelerating. 56.4 N @ 318.8° Trig angle. (41.2° below the +x axis)
4. 	Cable A makes an angle of 63.0° with the horizontal, and B makes an angle of 23.0° with the horizontal. What is the tension in each cable for there to be no acceleration of the system? A = 606 N B = 299 N
5. 	Find the tensions in Cable C and D: C = 151 N D = 151 N

6.  	Find the tensions in Cable C and D: C = 107 N D = 390. N
7.  	Find the tensions in Cable C and D: C = 270. N D = 224 N
8.  	Find the tensions in Cable C and D: C = 129 N D = 129 N
9.  	Find the tensions in Cable C and D: C = 389 N D = 347 N
10.  	Cable A has a force of 23 N along it, what must be the tensions in cable C and B for there to be no acceleration of the system? B = 17 N C = 27 N

Also from your textbook: Chapter 9: 1, 5, 9, 11, 12, 14 starting p. 247