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| **مهندس بوانی تمرین های استاتیک HW#5** | |
| 1. The 0. 61 1.00-m lid *ABCD of* a storage bin is hinged alongside *AB* and is held open by looping cord *DEC over* a frictionless hook at *E* . If the tension in the cord is 66 N, determine the moment about each of the coordinate axes of the force exerted by the cord at *D*. | 1. For the beam and loading shown, determine (a) the reaction at A,(b) the tension in cable BC. |
| 1. The frame ACD is hinged at A and D and is supported by a cable that passes through a ring at B and is attached to hooks at G and H . Knowing that the tension in the cable is 450 N, determine the moment about the diagonal AD of the force exerted on the frame by portion BH of the cable. | 1. A T-shaped bracket supports the four loads shown. Determine the reactions at A and B (a) if a = 10 in., (b) if a = 7 in. |
| 1. For the beam and loading shown, determine the range of the distancea for which the reaction at B does not exceed 100 lb downward or 200 lb upward. | 1. The bracket BCD is hinged at C and attached to a control cable at B. For the loading shown, determine (a) the tension in the cable,(b) the reaction at C. |
| 1. For the frame and loading shown, determine the reactions at A and E when (a) a = 30°, (b) a = 45°. | 1. Determine the reactions at A and B when (a) , (b) , (c) . |
| 1. A rod AB, hinged at A and attached at B to cable BD, supportsthe loads shown. Knowing that mm, determine (a) the tension in cable BD, (b) the reaction at A. | 1. Determine the tension in each cable and the reaction at D. |