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**Determine the reactions at a and b in the figure below**

In order to continue to enjoy our site, we request that you confirm your identity as a person. Thank you so much for your cooperation. In order to continue to enjoy our site, we request that you confirm your identity as a person. Thank you so much for your cooperation. Determine the reactions in A and B for the loaded beam as shown in Figure(a)-(c) below. The power of beam can be neglected throughout cases.help\_outline1. Determine the reactions in A and B for the loaded beam as shown in Figure(a)-(c) below. The power of beam can be neglected in all cases. 10 kN 12 slander 3 See also 2 See also 4 See also (a) full-screen help\_outline1. Determine the reactions in A and B for the loaded beam as shown in Figure(a)-(c) below. The power of beam can be neglected in all cases. 21 4 See also ox / me 900 kN 200 kN 400 N / l 15 knives B My 1.5m 2 See also 1.0m My 0.5m My 0.5m (b) full-screen The issue 4-2 beam is simply supported to show in figures 4-2(a) had to reverse portions on one side. Get their reaction to their support. Figure 4-2(a) Solution: The beam provided has a hinged support of A and a roller support of B. The free-body diagram is provided in Figure 4-2 (b), showing 2 reactions of A with a reaction in B. (the x-axis as shown in the face and the z-axis is the airline's peppendicular x-y.) There are three derived from static poised  $\sum F_x = 0$ ,  $\sum F_y = 0$ ,  $\sum M_z = 0$ ; available for this 2-dimensional structure. The number of unknown reaction elements is equal to the derived static poised. Therefore, this beam is statistics determined. Apply derived to static poised:  $\sum F_x = 0$ ; Axle = 0; (eq.1)  $\sum F_y = 0$ ; Ay + Not - 25 - 5 x 4 = 0; Dont + Pa = 45 kN; (eq. 2) Consider z-axle passes in A, and capture moments of all the forces on z-axes (clock -glass and anticlockwise + glass);  $\sum M_z = 0$ ; By x 6 - 25 x 10 - 5 x 4 x 4 = 0 (eq. 3) Solve eq. 3 yield By = 55 kN; Replace the value of Not in eq. 2 provides ay = -10 kN. The -glass sign of reaction indicates that the ay will be in the bottom direction instead of upper as shown in the free-body diagram. You can also use our beam calculator to determine the values of support reactions You can visit these links in resolved examples on moment bending and strength calculations and drawn in diagrams Example 5-1 Example 5-3 Example 5-4 Example 5-2

