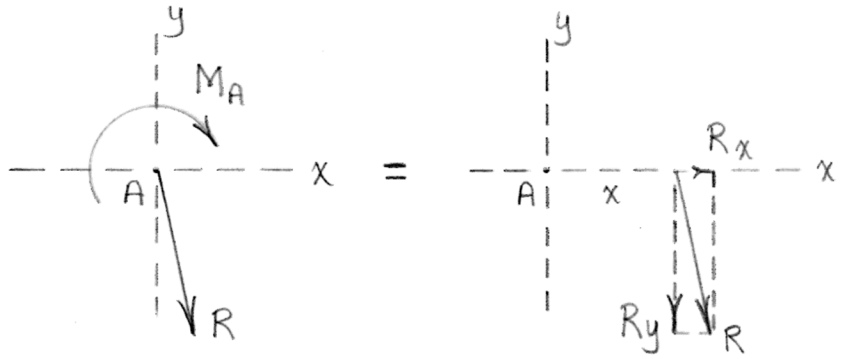
2/91 Equivalent force-couple system at A:

$$\underline{R} = -10\underline{j} - 4.8\underline{j} + 3.2(\sin 30^\circ \underline{i} + \cos 30^\circ \underline{j})$$

$$= \underline{1.6\underline{i} - 12.03\underline{j}\ \text{kN}}$$

$$+\circlearrowright M_A = 10(1.2) + 4.8(1.2 + 1.2\cos 30^\circ + 0.9) - 3.2\sin 30^\circ(0.6\sin 30^\circ) - 3.2\cos 30^\circ(1.2 + 0.6\cos 30^\circ)$$

$$= \underline{21.8\ \text{kN}\cdot\text{m}\ \text{CW}}$$



Condition: $x|R_y| = M_A$

$$x = \frac{21.8}{12.03} = \underline{1.814\ \text{m}}$$