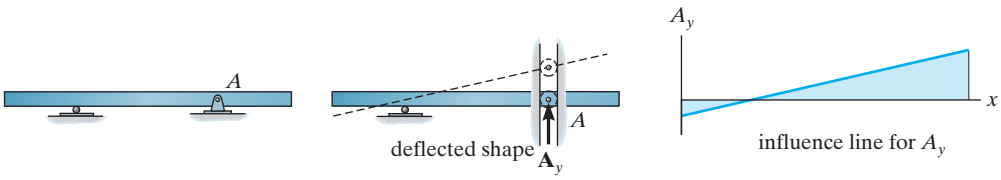
EXAMPLE 6.9

For each beam in Fig. 6–16*a* through 6–16*c*, sketch the influence line for the vertical reaction at A.

SOLUTION

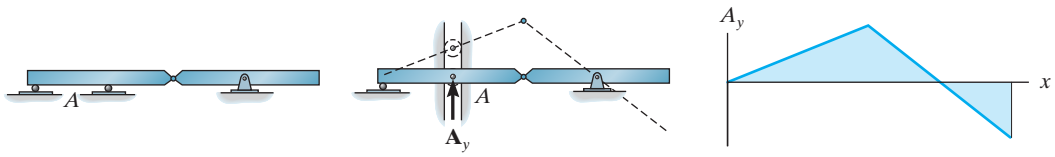
The support is replaced by a roller guide at A since it will resist $\mathbf{A}_x$, but not $\mathbf{A}_y$. The force $\mathbf{A}_y$ is then applied.



(a)

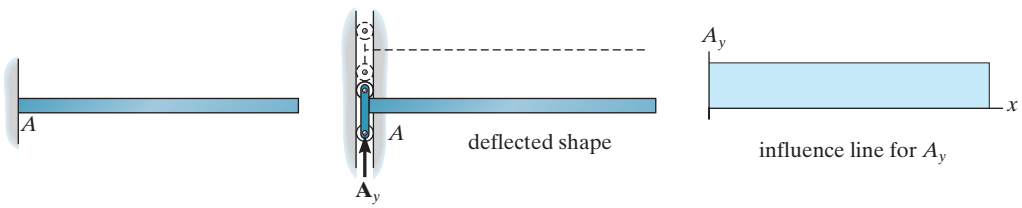
Fig. 6–16

Again, a roller guide is placed at A and the force $\mathbf{A}_y$ is applied.



(b)

A *double-roller guide* must be used at A in this case, since this type of support will resist both a moment $\mathbf{M}_A$ at the fixed support and axial load $\mathbf{A}_x$, but will not resist $\mathbf{A}_y$.



(c)