Solution to Exercise 8 in Chapter 1, with justification:

The answer is TRUE. To see this, note that by the first definition of two lines in space being parallel, the lines k and ℓ, being parallel, must be coplanar. Call the plane that contains them both α. The planes α and ω are not the same so they intersect in a line or not at all. Both α and ω contain k so $\alpha \cap \omega$ is equal to k. Because ℓ is a subset of α, the intersection of ℓ and ω, if there is one, lies in k. But ℓ and k don't intersect. Hence, ℓ and ω can't intersect.