30 Antimony-124 undergoes radioactive decay, with a half-life of 60 days, to becomes tellurium-124. Tellurium-124 is stable.

Initially, a sample of antimony-124 contains no tellurium.

For this sample, after what period of time will the ratio of antimony-124 to tellurium-124 be $\frac{1}{2}$?

A   between 30 days and 60 days

B   60 days