29   A radioactive source contains two species.

One has a half-life of 4 days and decays by the emission of alpha particles whilst the other has a half-life of 3 days and emits beta particles.

The initial count-rate is 352 min^{-1}, but when a sheet of paper is placed between the source and the detector this becomes 256 min^{-1}. The background count-rate is 16 min^{-1}.

What will be the count-rate after 12 days, without the paper present?

A   27 min^{-1} **B**   28 min^{-1} **C**   43 min^{-1} **D**   44 min^{-1}