

Radioactivebots



Dear Students,

I found this sign in my storage shed on top of a large and beautiful diamond (it weighs 0.5g). I have reason to believe it is contaminated with carbon-10 which is a radioactive isotope of carbon. I would like to know when it will be safe to give the diamond to my spouse without subjecting them to radiation poisoning.

To figure this out we will be running a simulation with the robots where they decay or not each second in the same way that the carbon isotopes do. Once we take data using the simulation, we will use the graph and equation to predict how long it takes for all of the carbon-10 atoms be gone.

Thanks,
Your Teacher