

Name:

Quiz #6

Solve the following problems. Show all of your work and make it clear what your answer is.

1. Suppose that the number of alien encounters doubles every 32 years, and that this year there were 45 alien encounters.

(a) How many aliens encounters can you expect in 2068?

(b) When will the number of alien encounters reach 200?

2. The element darmstadtium decays extraordinarily fast, at 6.11% per second.

(a) Find the half-life of darmstadtium in seconds.

(b) If you start with 500 mg of darmstadtium, how much will be left after 1 minute?