6. [7 points] Kiki is experimenting with a highly radioactive substance, Isotope-Z. Isotope-Z decays at a (non-continuous) rate of 20% per day.

a. [3 points] Find the continuous decay rate of Isotope-Z. Give your answer as a percentage estimated to three decimal places or in exact form.

The continuous decay rate of Isotope-Z is ________________.

b. [4 points] Find the amount of time it takes for Isotope-Z to decrease to 60% of the initial amount present. Do not assume the initial amount is any specific number. Be sure to show all your work and leave your answer in exact form with units.

The amount of time is ________________.