

## Writing Exponential Decay Rules

1. A ball drops from 10 feet and rebounds to 25% of its rebound height. Write the **“y =” equation** that models the situation and the **recursive rule** that models the situation.
2. A 10 mg dose of an antibiotic will be broken down so that after one hour only 60% will remain active. Write the **“y =” equation** that models the situation and the **recursive rule** that models the situation.
3. A ball drops from 20 feet and rebounds to 40% of its rebound height. Write the **“y =” equation** that models the situation and the **recursive rule** that models the situation.
4. A 30 mg dose of an antibiotic will be broken down so that after one hour only 80% will remain active. Write the **“y =” equation** that models the situation and the **recursive rule** that models the situation.
5. A ball drops from 100 feet and rebounds to 70% of its rebound height. Write the **“y =” equation** that models the situation and the **recursive rule** that models the situation.
6. A 500 mg dose of an antibiotic will be broken down so that after one hour only 75% will remain active. Write the **“y =” equation** that models the situation and the **recursive rule** that models the situation.