

3. (4 points) There are 2 drugs, A and B . Let $a(n)$ and $b(n)$ represent the number of milligrams of each drug in the body at the beginning of day n . The body converts 10% of A into B each day and converts 25% of B into A each day. Assume that 800 mg of A and 600 mg of B are consumed each day, and that the body eliminates 100 mg of A and 200 mg of B each day. Begin with $a(0) = 800$ and $b(0) = 600$ and develop a dynamical system to represent $a(n)$ and $b(n)$. Use your system to find $a(2)$ and $b(2)$.