7. (10 points) During the holiday season there are two main groups of people at the mall (excluding the store employees). These are the shoppers and the volunteers ringing bells to collect money for charities. The numbers of each vary over time. If we let $B(t)$ be the number of bell ringers at time t and $S(t)$ be the number of shoppers at time t, and assume these are modeled by a predator-prey system of differential equations, then the differential equations describing their numbers are

$$\frac{dB}{dt} = -1,000\,B + 2\,BS$$
$$\frac{dS}{dt} = 66\,S - 11\,BS.$$

(a) Given this model, which is the "predator" and which is the "prey"? Make sure you justify your answer by explaining how this is reflected in the given equations.

(b) What are the equilibrium points of this system? Describe what the equilibrium points mean in terms of this problem.