Let \( A = \{ x \mid x \text{ is a car manufactured in America} \} \)
\( G = \{ x \mid x \text{ is a General Motors car} \} \)
\( H = \{ x \mid x \text{ is a Honda car} \} \)
\( P = \{ x \mid x \text{ is a Pontiac car} \} \)

1. What is an appropriate Universal set \( U \) to encompass these sets?

2. Write the set that represents each described collection:
   a. The set of Hondas which are manufactured in America
   b. The set of General Motors cars which are not Pontiacs
   c. The set of cars which are neither Hondas nor Pontiacs
   d. The set of cars which are neither Hondas nor Pontiacs but are manufactured in America

3. Express the following statements in English:
   a. \( P \subseteq G \)
   b. \( G \not\subseteq A \)
   c. \( G \cap H = \emptyset \)
   d. \( A \cap H \neq \emptyset \)

4. Draw a Venn diagram for the sets defined above, which uses the facts in question 3. Shade in the portion corresponding to \( H \cap A^c \).