Water Footprint Challenge Answer Keys
Water Footprint Challenge Part 1
1. 24 <= x < 960
   a. Explanation: Corn ethanol uses between 0.6 and 20 gallons per mile. Multiply the car's gas mileage (24) by 40 miles per day.
2. 9 < x < 27
   a. Explanation: Gasoline uses 0.1 to 0.3 gallons per mile, and Person B's daily commute is 90 miles.
3. 6000 < x < 200000
   a. Explanation: Multiply the range from Question 1 by 250.
4. 2250 < x < 6750
   a. Explanation: Multiply the range from question 2 by 250.
5. 0.72
   a. Explanation: 60 kWh/month * 12 months/year * 1 MWh ÷ 1000 kWh
6. 72 <= x <= 229
   a. Explanation: Multiply 0.72 MWh/year by the range of 100 to 317 gallons per MWh for coal.
7. 14.4 <= x <= 72
   a. Explanation: Multiply 0.72 MWh/year by the range of 20 to 100 gallons per MWh for gas.

Water Footprint Challenge Part 2
1. 21000 <= x <= 22000
2. 3000 <= x <= 3200
   a. Explanation: July evaporation for Riverside is 10.88 inches, or 0.91 feet. Using the Swimming Pool Volume calculator, the resulting volume is approximately 3063 gallons.
3. 15%
   a. Explanation: Divide evaporation in gallons by total volume in gallons.
4. 8.24
5. 2200 < x < 2400
   a. Explanation: According to the article, evapotranspiration = irrigated area x ET rate X 0.6233