



Water Mileage Challenge

Name: _____

Date: _____

Given the information on desert bighorn sheep and gopher tortoises from the hypothetical examples on the prior page, answer the following questions:

1. How many miles to the gallon (or kilometers per liter) does a ram get?
2. How many gallons (or liters) of water would a ram drink in a month?
3. How many gallons (or liters) of water would a ewe drink in a month?
4. How many gallons (or liters) of water would a lamb drink in a month?
5. How do the amounts of water that a ram, ewe, and lamb drink in a month compare? Why does a ewe need more gallons than a ram?
6. How much water must be available in a waterhole for 10 rams, 16 ewes, and 7 lambs in order for them to survive the months of June, July, and August?
7. What rate of inflow (how much water is entering the water source) would a waterhole require to sustain the population given above if water evaporated at a rate of 10 gallons (38 liters) per day?
8. How many liters (or gallons) could a 3.6-kilogram gopher tortoise consume in one drinking session? (Hint: 1 kilogram of water is equal to 1,000 ml of water)
9. Based on the amount of water a 3.6-kilogram gopher tortoise may consume at one time, how many miles to the gallon (or kilometers per liter) would it get?

