

Name:

Date:

Class:

Lesson 6: Splish, Splash, I was Takin' a Bath – How Much? Worksheet **Answers**

Section I. How many cans of pop?

1. If each glass of water is 8 ounces, how many ounces of water does the average person drink in a lifetime?

$$\underline{219,000 \text{ glasses/lifetime} \times 8 \text{ ounces/glass} = 1,752,000 \text{ ounces/lifetime}}$$

2. A can of pop contains 12 ounces of liquid (mostly water). Using your answer from question 1, and assuming that you only drink pop to get that amount of water, how many cans of pop does the average person drink in a lifetime?

$$\underline{1,752,000 \text{ ounces/life} \div 12 \text{ ounces/pop} = 146,000 \text{ pops/lifetime}}$$

3. How many 6-packs of pop is this?

$$\underline{146,000 \text{ pops/lifetime} \div 6 \text{ pops/6-pack} = 24,333.3 \text{ 6-packs/lifetime}}$$

4. How many 12-packs of pop is this?

$$\underline{24,333.3 \text{ 6-packs/lifetime} \div 2 \text{ 6-packs/12-pack} = 12,166.67 \text{ 12-packs/lifetime}}$$

$$\underline{146,000 \text{ pops/lifetime} \div 12 \text{ pops/12-pack} = 12,166.67 \text{ 12-packs/lifetime}}$$

5. A case of pop contains 24 cans. How many cases of pop is this?

$$\underline{12,166.67 \text{ 12-packs/lifetime} \div 2 \text{ 12-packs/case} = 6,083.3 \text{ cases/lifetime}}$$

$$\underline{146,000 \text{ pops/lifetime} \div 24 \text{ pops/case} = 6,083.3 \text{ cases/lifetime}}$$

Section II. How many miles of pop?

1. If each glass of water is 8 ounces, how many ounces of water does the average person drink in a lifetime?

$$\underline{219,000 \text{ glasses/lifetime} \times 8 \text{ ounces/glass} = 1,752,000 \text{ ounces/lifetime}}$$

2. A can of pop contains 12 ounces of liquid (mostly water). How many cans of pop does the average person drink in a lifetime?

$$\underline{1,752,000 \text{ ounces/lifetime} \div 12 \text{ ounces/pop} = 146,000 \text{ pops/lifetime}}$$

3. A 12-ounce can of pop is approximately 5 inches tall. How many “inches of pop” does the average person drink in a lifetime?

$$\underline{146,000 \text{ pops/lifetime} \times 5 \text{ inches/pop} = 730,000 \text{ inches/lifetime}}$$

4. How many “feet of pop” is this?

$$\underline{730,000 \text{ inches/lifetime} \div 12 \text{ inches/foot} = 60,833.3 \text{ feet/lifetime}}$$

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5. How many “miles of pop” is this? (There are 5,280 feet in one mile.)

$$\underline{60,833.3 \text{ feet/lifetime} \div 5,280 \text{ feet/mile} = 11.5 \text{ miles/lifetime}}$$

Section III. How many swimming pools of water?

1. If each glass of water is 8 ounces, how many ounces of water does the average person drink in a lifetime?

$$\underline{219,000 \text{ glasses/lifetime} \times 8 \text{ ounces/glass} = 1,752,000 \text{ ounces/lifetime}}$$

2. One gallon contains 128 ounces. How many gallons of water does the average person drink in a lifetime?

$$\underline{1,752,000 \text{ ounces/lifetime} \div 128 \text{ ounces/gallon} = 13,687.5 \text{ gallons/lifetime}}$$

3. An average sized swimming pool (40 ft. x 20 ft. x 5 ft.) has a volume of 4,000 ft.³. If there are 7.48 gallons in 1 ft.³, how many gallons of water will this swimming pool hold?

$$\underline{4,000 \text{ ft.}^3/\text{pool} \times 7.48 \text{ gallons/ft.}^3 = 29,920 \text{ gallons/pool}}$$

4. How many “swimming pools” of water does the average person drink in a lifetime?

$$\underline{13,687.5 \text{ gallons/lifetime} \div 29,920 \text{ gallons/pool} = 0.46 \text{ pools/lifetime (about } \frac{1}{2} \text{ a pool)}}$$

Adapted from: “How Many Cans of Soda Pop?” Ecology Earth’s Natural Resources Activity Book, by Jean Hopkins, Susan Johnson and Charles William McLaughlin, Charles William, New Jersey: Prentice Hall, Inc., 1993 (ISBN 0-13-987090-3).