## Capacity word problems (customary units)

Hint: 16 ounces $=2$ cups $=1$ pint
2 pints = 1 quarts
4 quarts $=1$ gallon

1. Bonnie is making popsicles with chocolate milk. The capacity of each popsicle stick is 95 ml . How much milk (measured in L) does she need to make 15 popsicles?
2. To allow the pump of the fish tank to work properly and avoid water overthrowing, the fish tank should be filled up to $\frac{7}{8}$ of its capacity. Emily bought a 64-gallon fish tank and filled up the fish tank with 13 gallons of salt water. How much more water should she add?
3. A tea pot can hold up to 2.16 L and can fill 9 cups of tea. What is the capacity (measured in ml ) of a teacup?

4. A 12-oz bottle of pancake syrup costs $\$ 4$. A can with half a gallon of pancake syrup costs $\$ 32$. Which has better value?
5. A garden hose can fill up a 405 -liter pool in 9 minutes. How long does it take to fill up a 90-liter bucket?
6. In the office, there is a water machine that contains 60 gallons of water. There are 44 staff in the office. If each person drinks 36 oz of water in a day, about $\qquad$ gallons of water are left at the end of the day.
a. $\quad 12$
b. 30
c. 48

## Answers

1. $95 \mathrm{ml} \times 15=1425 \mathrm{ml}$
$1,425 \mathrm{ml}=1.425 \mathrm{~L}$
She needs 1.425 L of milk to make 15 popsicles.
2. $64 \times \frac{7}{8}-13=56-13=43$

She should add 43 more gallons.
3. $2.16 \mathrm{~L}=2160 \mathrm{ml}$
$2,160 \div 9=240$
The capacity of a teacup is 240 ml .
4. $4 \div 12=\frac{1}{3}$

The bottle of syrup is $\$ \frac{1}{3}$ per oz.
0.5 gallon $=64 \mathrm{oz}$
$32 \div 64=\frac{1}{2}$
The can of syrup is $\$ \frac{1}{2}$ per oz.
$\frac{1}{2}>\frac{1}{3}$
The 12-oz bottle of pancake has a better value.
5. $90 \div(405 \div 9)=2$

It takes 2 minutes to fill up a 90 -liter bucket.
6. $44 \times 36=1,584 \mathrm{oz}$
$1,584 \mathrm{oz}=12.38$ gallons
$60-12.38=47.87$ gallons
Answer is (c).

