

## Volume and capacity word problems (customary units)

---

### Grade 4 Word Problems Worksheet

Hint: 16 ounces = 2 cups = 1 pint

2 pints = 1 quart

4 quarts = 1 gallon

1. The capacity of a plastic container of milk is 1 gallon. The volume of a box container of milk is 2 pints and the volume of a can of milk is 3 pints. How many box containers of milk can the plastic container hold?
  
  
  
  
  
  
  
  
  
  
2. Ryan put 1 cup of syrup, 1 pint of water, and 2 quarts of pure pineapple juice in a pitcher. In cups, what is the volume of the mixture in the pitcher?
  
  
  
  
  
  
  
  
  
  
3. One bottle of alcohol contains 4 pints of alcohol. If there are 36 bottles of alcohol placed in one box, how much alcohol in quarts are there in the box?





## Answers

1.  $1 \text{ gallon} = 4 \text{ quarts} = 8 \text{ pints}$   
 $8 \div 2 = 4 \text{ box containers}$   
The plastic container of milk can hold 4 boxes of milk.
2.  $1 \text{ pint} = 2 \text{ cups}$   
 $2 \text{ quarts} = 4 \text{ pints} = 8 \text{ cups}$   
 $1 + 2 + 8 = 11 \text{ cups}$   
There are 11 cups of mixture in the pitcher.
3.  $4 \times 36 = 144 \text{ pints}$   
 $144 \div 2 = 72 \text{ quarts}$   
There are 72 quarts of alcohol in the box.
4.  $2 \text{ quarts} = 4 \text{ pints} = 8 \text{ cups} = 64 \text{ ounces}$   
 $64 - 35 = 29 \text{ ounces}$   
There are 29 ounces of coffee left in the kettle.
5.  $8 \text{ ounces} = 1 \text{ cup}$   
 $64 \div 8 = 8 \text{ cups}$   
 $8 \times 7 = 56 \text{ cups}$   
We need to drink 56 cups of water in one week.
6.  $5 \text{ mugs} \times 12 \text{ oz} = 60 \text{ oz}$   
 $2 \text{ quarts of water} = 64 \text{ oz}$   
 $64 - 60 = 4 \text{ oz}$   
2 quarts of water is 4 oz more than 5 full mugs.