Capacity word problems (mixed units)

Grade 5 Word Problems Worksheet

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

1.   Leilani's water tumbler contains 1.8 L of water. She drank 200 ml from it 1.5 hours after a meal, and she accidentally spilled 1250 ml of water. How much water was left in her water tumbler?

2.   The capacity of a barrel is 12 gallons. The capacity of a small pail is 3 quarts. How many pails of water are needed to fill up the barrel?

3.   Ben is known for making quality cooking oil. He produced 64 L 200 ml of cooking oil. He reserved 25 L 800 ml of the oil for his regular clients in restaurants. The rest of it was used to fill empty plastic bottles holding 800 ml which will be sold in markets. How many plastic bottles of cooking oil will be filled?

4.   There are 6 gallons of water in the water dispenser. Yesterday, there were 8 quarts of water dispensed at the hot water dispenser and 18 pints of water dispensed at the cold-water dispenser by the 12 office workers. How much water was left in the water dispenser altogether? Express your answer in pints.

5.   Pia bought 2 boxes of chocolate powder and 3 packs of snacks for her niece. Each scoop of chocolate powder can make 8 ounces of chocolate milk. If each box holds 40 scoops, how many gallons of chocolate milk can be made from it?

6.   There was 8L 670 ml of water in the basin. After some of the water was used to fill the 2 empty water pails A and B full, there was 2,430 ml left in the basin. The capacity of the pail A was 3,400 ml and the capacity of pail B was about _____ ml.

   a.   2,000
   b.   2,500
   c.   3,000

Answers

1. 1.8 L = 1,800 ml
   1,800 – 200 – 1250 = 350 ml
   There was 350 ml of water left in the tumbler.

2. 12 gallons = 48 quarts
   48 ÷ 3 = 16
   16 pails of water are needed to fill up the barrel.

3. 64 L 200 ml = 64,200 ml and 25 L 800 ml = 25 800 ml
   64,200 – 25,800 = 38,400
   38,400 ÷ 800 = 48
   Ben can fill 48 plastic bottles of cooking oil.

4. 6 gallons = 48 pints
   8 quarts = 16 pints
   48 – 16 – 18 = 14
   There were 14 pints of water left in the water dispenser.

5. 2 x 8 x 40 = 640 oz
   640 oz = 5 gallons
   She can make 5 gallons of chocolate milk.

6. 8L 670 ml = 8,670 ml
   8,670 – 2,430 – 3,400 = 2,840
   Answer is (c).