



4th
Basic

5th
Advanced

Helping With Math

USA
GRADES

Conversion of Unlike Units (Measures of Capacity)

*Suitable for students
aged 8-10*



This pack is suitable for learners aged 8-10 years old or 4th to 5th graders (USA). The content covers fact files and relevant basic and advanced activities involving conversion of unlike units (measures of capacity).



Every 6th of May of each year, we celebrate the National Beverage Day. Now, using the capacity measurement, we get to measure our very own drinks! We can convert them to different units like liter to gallon, milliliter to fluid ounce, etc.



During the National Beverage Day, the bartender was able to make 120 milliliters of assorted drinks. If converted to liters and pint, what are the values?



$$\begin{aligned} 120 \text{ mL} &= \\ &\underline{0.12 \text{ L}} \\ \bullet \quad 120 &\div \\ &1,000 \end{aligned}$$

$$\begin{aligned} 120 \text{ mL} &= \\ &\underline{0.25 \text{ pt}} \\ \bullet \quad 120 &\div \\ &473 \end{aligned}$$



MEASURES OF CAPACITY CONVERSION TABLE

The metric and US standard units of capacity can be converted into one another. To do so, the multiplication or division operation must be used.



liter	L	1 L = 1,000 mL, 33.81 fl oz, 4.17 c, 2.11 pt, 1.06 qt, or 0.26 gal
milliliter	mL	1 mL = 0.001 L, 0.03 fl oz, 0.004 c, 0.002 pt, 0.001 qt, 0.0002 gal

fluid ounce	fl oz	1 oz = 0.03 L, 29.57 mL, 0.125 c, 0.0625 pt, 0.03125 qt, or, 0.0078125 gal
cup	c	1 c = 0.24 L, 240 mL, 8 fl oz, 0.5 pt, 0.25 qt, or 0.0625 gal
pint	pt	1 pt = 0.47 L, 473.18 mL, 16 fl oz, 2 c, 0.5 qt, or 0.125 gal
quart	qt	1 qt = 0.95 L, 946.35 mL, 32 fl oz, 4 c, ,2 pt, or 0.25 gal
gallon	gal	1 gal = 3.79 L, 3785.41 mL, 128 fl oz, 16 c, 8 pt, or 4 qt



PRACTICE EXERCISES

Prior to the National Beverage Day, Maya's Station 19 Coffee Shop sold 90 liters of normal tea. Convert it to cup and quarts.

Solution:



98 mL	_____ c
54 gal	_____ qt
73 fl oz	_____ pt
29 pt	_____ gal
8 gal	_____ c



TABLE OF ACTIVITIES

Ages 8-9 (Basic)		<u>4th Grade</u>
1	The Beverages Chart	
2	Drinks-in-a-Box	
3	Hot Cup task	
4	Seattle's Winery Maze	
5	Milk tea Hub	
Ages 9-10 (Advanced)		<u>5th Grade</u>
6	Coffee Madness	
7	Lemonade Gulp	
8	The Common Beverages	
9	National Beverage Day	
10	Milk Nutrients	



THE BEVERAGES CHART

G4
Basic

Complete the beverage chart by converting the following capacity units to what is indicated. Also, do not forget to answer the word problem below.

82 c	_____ mL	_____ gal
65 qt	_____ gal	_____ pt
25 pt	_____ fl oz	_____ qt
9 gal	_____ pt	_____ c
75 c	_____ gal	_____ L

The Grey Sloan Beverages usually sells 210 liters of different drinks every day. Convert it to fluid ounce, quart, and pint.

Solution:



DRINKS-IN-A-BOX

G4
Basic

Reveal the drinks in the box by converting the following pints to cups and vice versa. Round off to the nearest hundredths if applicable.

1) 21 pt =

_____ c

Solution:



2) 31 pt =

_____ c

Solution:



3) 36 c =

_____ pt

Solution:



4) 114 c =

_____ pt

Solution:



HOT CUP TASK

G4
Basic

Here's a hot cup task for you! Convert the following liters to gallon and vice versa. Show your solution.

- | | |
|---------------------|----------------------|
| 1) 54 L = _____ gal | 6) 21 gal = _____ L |
| 2) 68 L = _____ gal | 7) 7 gal = _____ L |
| 3) 9 L = _____ gal | 8) 20 gal = _____ L |
| 4) 52 L = _____ gal | 9) 10 gal = _____ L |
| 5) 19 L = _____ gal | 10) 12 gal = _____ L |

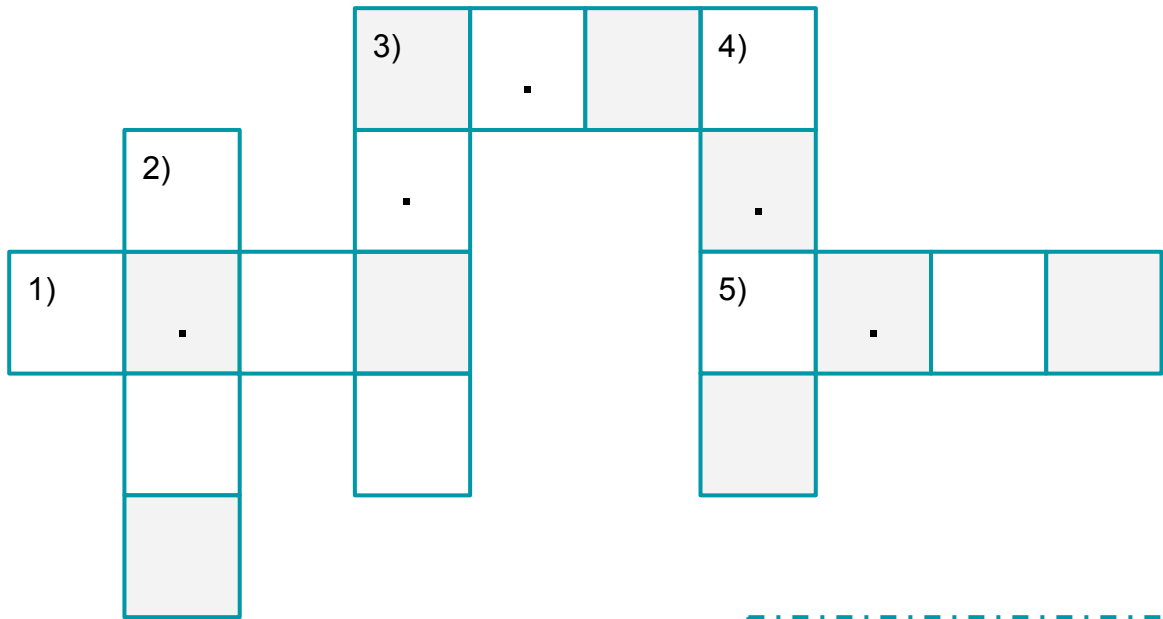
Solution:



SEATTLE'S WINERY MAZE

G4
Basic

Complete the winery maze below as you convert fluid ounce to pint.



The Seattle Winery marked their 1st anniversary. As part of their warm gratitude towards their customers, they are offering discounts on selected wines in fl oz. Convert it to pt to enjoy the discount.

Horizontal:

1) 94 fl oz = _____ pt

3) 18 fl oz = _____ pt

5) 77 fl oz = _____ pt

Vertical:

2) 69 fl oz = _____ pt

3) 29 fl oz = _____ pt

4) 55 fl oz = _____ pt



MILK TEA HUB

G4
Basic

Help the milk tea hub compute and convert the following measures of capacity.

1) $325 \text{ c} =$

_____ L

Solution:

2) $325 \text{ c} =$

_____ pt

Solution:

3) $325 \text{ c} =$

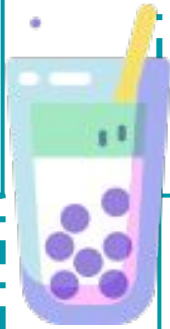
_____ fl oz

Solution:

4) $325 \text{ c} =$

_____ qt

Solution:



The Marina Milk Tea Hub is currently at their 1 month operation. Based on the inventory made, they already produced 325 cups of milk tea. Convert it to its unlike units.



COFFEE MADNESS

G5
Advanced

Examine if the coffee being served to you suits your taste! Write TRUE if the statement is correct. Otherwise, write FALSE and write the correct answer below the given.

1) Thirty-six quarts is equal to thirty-four thousand, six hundred eight and seven millimeters.

Correct answer (if False):



2) When nine thousand eight hundred seventy-three and four milliliters is converted to quarts, it will result to twenty and one.



Correct answer (if False):

3) Eight quarts is equal to seven thousand five hundred seventeen and eighty-two millimeters.

Correct answer (if False):



LEMONADE GULP

G5
Advanced

Get unlimited lemonade juice by encircling the letter of your choice then explain your answer.

Explanation:

1) What value of pt will result to 52 gal?

- | | |
|--------|--------|
| a. 416 | c. 146 |
| b. 461 | d. 164 |

2) What value of gal will result to 720 pt?

- | | |
|-------|-------|
| a. 60 | c. 80 |
| b. 70 | d. 90 |

Explanation:

Explanation:

3) What value of pt will result to 75 gal?

- | | |
|--------|--------|
| a. 600 | c. 800 |
| b. 700 | d. 900 |



THE COMMON BEVERAGES

G5
Advanced

Look for the following common beverages online and get their respective measurements. Afterwards, convert it to its unlike units.

MEASURING CAPACITY

UNLIKE UNITS MEASUREMENT	MEASUREMENT BASED ON INFO PROVIDED	ITEM
		Water 
		Soda 
		Juice 
		Milk 



NATIONAL BEVERAGE DAY

G5
Advanced

Celebrate the National Beverage Day by listing 5 of your most favorite beverages and look for its measurement on the packaging. Afterwards, convert it to its unlike unit.

BEVERAGE	PROVIDED MEASUREMENT	CONVERTED MEASUREMENT



Among the 5 beverages you list, which among them is your most favorite? Why? How many milliliters can you consume per day?



MILK NUTRIENTS

G5
Advanced

Drink your milk everyday to ace the questions of your tests!
Answer the following questions below in 3-5 sentences each.

1. When do you most commonly use the concept of measurements of capacity?

2. What is/are the benefit/s of knowing how to convert one unit to another in the context of capacity?



ANSWER GUIDE

Activity 1

1. 19,680 mL; 5.20 gal
2. 16 gal; 130 pt
3. 49 fl oz; 12.5 qt
4. 75 pt; 141.95 c
5. 4.75 gal; 18 L

Word prob: 7,100.94 fl oz;
221.91 qt; 443.81 pt

Activity 3

- | | |
|--------------|----------|
| 1. 14.27 gal | 6. 80 L |
| 2. 17.96 gal | 7. 28 L |
| 3. 2.38 gal | 8. 77 L |
| 4. 13.74 gal | 9. 39 L |
| 5. 5.02 gal | 10. 45 L |

Activity 5

1. 78 L
2. 164.84 pt
3. 2,637.49 fl oz
4. 82.42 qt

Activities 8-10

Answers may vary.

Activity 2

1. 41.40 c
2. 61.12 c
3. 18 pt
4. 57 pt

Activity 4

Horizontal:

1. 5.88
3. 1.13
5. 4.81

Vertical:

2. 4.31
3. 1.81
4. 3.44

Activity 6

1. False: 34, 068.7
2. False: 21
3. False: 7,570.82

Activity 7

1. A
2. D
3. A



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