Math: Today, you will learn customary units of liquid volume and the relationship between them.

Customary Units of Liquid Volume: Gallons, Quarts, Pints, Cups, Fluid Ounces

*Take a look at Mr. Gallon. He will be helpful with learning the relationships between customary units of liquid volume.

*Mr. Gallon shows..

     1 gallon equals **4 quarts**
     1 gallon equals **8 pints**
     1 gallon equals **16 cups**

*Mr. Gallon shows..

     1 quart equals **2 pints**
     1 quart equals **4 cups**

*Mr. Gallon shows..

     1 pint equals **2 cups**

*Mr. Gallon does not show..

     1 cup equals **8 ounces**

*Do you see a pattern?

       1 gallon equals **4 quarts** because 1x4=4.
       2 gallons equals **8 quarts** because 2x4=8.
       3 gallons equals **12 quarts** because 3x4=12.

       1 gallon equals **8 pints** because 1x8=8.
       2 gallons equals **16 pints** because 2x8=16.
       3 gallons equals **24 pints** because 3x8=24.

       1 gallon equals **16 cups** because 1x16=16.
       2 gallons equals **32 cups** because 2x 16=32.
       3 gallons equals **48 cups** because 3x16=48.

       1 quart equals **2 pints** because 1x2=2.
       2 quarts equals **4 pints** because 2x2=4.
       3 quarts equals **6 pints** because 3x2=6.

       1 quart equals **4 cups** because 1x4=4.
       2 quarts equals **8 cups** because 2x4=8.
       3 quarts equals **12 cups** because 3x4=12.

       1 pint equals **2 cups** because 1x2=2.
       2 pints equals **4 cups** because 2x2=4.
       3 pints equals **6 cups** because 3x2=6.

       1 cup equals **8 fluid ounces** because 1x8=8.
       2 cups equals **16 fluid ounces** because 2x8=16.
       3 cups equals **24 fluid ounces** because 3x8=24.

*Abbreviations for **gallons** is **gal**, **quart** is **qt**, **pint** is **pt**, and **cups** is **c**, **fluid ounces** is **fl.oz**

Customary units of liquid volume song:
https://www.youtube.com/watch?v=DMmI9PoTE8E

Let's do some examples together!
Directions: Fill in the blank.

1. 2 pints = _____ cup   **Answer:** 4
How did I get 4 c? Mr. Gallon shows there are 2 c in 1 pt, so I did 2x2=4.

2. 3 gallons = _____ quarts   **Answer:** 12
How did I get 12qt? Mr. Gallon shows there are 4 qt in 1 gal, so I did 3x4=12.

3. 6 quarts = _____ cups   **Answer:** 24
How did I get 24 c? Mr. Gallon shows there are 4 c in 1 qt, so I did 6x4=24.

4. 4 cups = _____ fluid ounces   **Answer:** 32
How did I get 32 fluid ounces? The chart on the side shows there are 8 fluid ounces in 1 cup, so I did 4x8=32.

Directions: Compare with less than, greater than, or equal to.

5. 2 gallons ○ 32 cups   **Answer:** = or equal
How did I get 2 gal = 32 c? Mr. Gallon shows there are 16 c in 1 gal, so I did 2x16=32.

6. 8 pints ○ 6 cups   **Answer:** > or greater than
How did I get 8 pt is greater than 6 c? Mr. Gallon shows 1 pt has 2 c, so I did 8x2=16 which is greater than 6.

7. 5 quarts ○ 11 pints   **Answer:** < or less than
How did I get 5 qt is less than 11 pt? Mr. Gallon shows there are 2 pt in 1 qt, so I did 5x2=10 which is less than 11.

8. 8 cups ○ 40 fluid ounces   **Answer:** > or greater than
How did I get 8 cups is greater than 40 fluid ounces? The chart shows 8 fluid ounces in 1 cup, so I did 8x8=64 which is greater than 40.

Your Turn! Practice Problems:

Directions: Fill in the blank.

1. 12 quarts = _____ pints   **Answer:**

2. 9 pints = _____ cups   **Answer:**

3. 5 gallons = _____ quarts   **Answer:**

4. 6 cups = _____ fluid ounces   **Answer:**

Directions: Compare with **less than**, **greater than**, or **equal to**.

5. 3 gallons ○ 30 quarts   **Answer:**

6. 5 quarts ○ 20 pints   **Answer:**

7. 12 pints ○ 6 cups   **Answer:**

8. 9 cups ○ 72 fluid ounces   **Answer:**