

Recording Conversion

Monday 10/27/08

Do-Now: Converting liquid measures

$$1 \text{ gallon} = 4 \text{ quarts}$$

$$1 \text{ quart} = 2 \text{ pints}$$

$$1 \text{ pint} = 2 \text{ cups}$$

For each of the problems below, fill in the blank.

- 3 pints = _____ cups
- 10 pints = _____ quarts
- 2 gallons = _____ quarts
- 8 cups = _____ pints
- 4 quarts = _____ pints
- 12 quarts = _____ gallons

Conversion card game

When using the conversion cards:

- Clear your desk of everything except this paper and a writing implement.
- When you get the bag of cards, leave it on your desk and do not touch it.
- When I tell you to**, divide the deck into four piles at the top of your desk.
- Leave the bag at the corner of your desk, and do not touch it until you put the cards away.
- As you play the game, only touch the cards when I tell you to.
- When we are done, put the cards back in the bag and leave it on the corner of your desk.

Each of the problems below will ask you to **record** using math language what units you have at each step. There is an = sign between the steps because, if you are doing it right, there is the same amount of water in each step; you have just poured it from container to container.

- Convert twelve cups into quarts.

$$\boxed{12 \text{ cups}} = \boxed{\text{_____ pints}} = \boxed{\text{_____ quarts}}$$

- Convert a gallon into pints.

$$\boxed{1 \text{ gallon}} = \boxed{\text{_____ quarts}} = \boxed{\text{_____ pints}}$$

- Convert six cups and five pints into gallons.

$$\boxed{6 \text{ cups} + 5 \text{ pints}} = \boxed{\text{_____ pints}} = \boxed{\text{_____ quarts}} = \boxed{\text{_____ gallons}}$$

- Convert eight cups and three quarts into pints.

$$\boxed{8 \text{ cups} + 3 \text{ quarts}} = \boxed{\text{_____ pints} + \text{_____ quarts}} = \boxed{\text{_____ pints}}$$

- Convert six cups, three pints, and five quarts into gallons

$$\boxed{6 \text{ cups} + 3 \text{ pints} + 5 \text{ quarts}} = \boxed{\text{_____ pints} + \text{_____ quarts}}$$
$$= \boxed{\text{_____ quarts}} = \boxed{\text{_____ gallons}}$$

Name:
Homeroom:
Mr. Z.'s Science Class
10/27/08

Recording Conversion Homework

On each of these problems:

1. Under the first picture, write what you start with, and fill in those units
2. Circle the cups you will pour into pints
3. In the second picture, fill in units to show where the water is now
4. Under that picture write in math language what units are filled
5. Circle the pints you will pour into quarts
6. In the last picture, fill in units to show where the water is now
7. Under that picture write in math language what units are filled

Your goal always is to convert smaller units into larger ones if possible. However, you may have to leave some unconverted if you don't have two to combine. The first problem has been done as an example.

0. **Example:** What is seven cups equal to?

The example shows three stages of conversion. Stage 1: A box containing 7 cups and 2 quarts. The 7 cups are shaded and circled, with the text "7 cups" written below. Stage 2: The same box, but the 7 cups are grouped into 3 pints (each containing 2 cups) and 1 cup. The text below is "= 1 cup + 3 pints". Stage 3: The 3 pints are further converted into 1 quart (2 pints) and 1 pint (1 pint). The text below is "= 1 cup + 1 pint + 1 quart".

1. What is six cups equal to?

A box containing 6 cups and 2 quarts. This is followed by two empty boxes for conversion.

2. What is eight cups equal to?

A box containing 8 cups and 2 quarts. This is followed by two empty boxes for conversion.

3. What is five cups equal to?

A box containing 5 cups and 2 quarts. This is followed by two empty boxes for conversion.

4. What is nine cups equal to?

A box containing 9 cups and 2 quarts. This is followed by two empty boxes for conversion.

5. What is four cups equal to?

A box containing 4 cups and 2 quarts. This is followed by two empty boxes for conversion.

6. What is three cups and two pints equal to?

A box containing 3 cups and 2 pints (each containing 2 cups) and 2 quarts. This is followed by two empty boxes for conversion.