NAME: _____ Date: _____

College Prep Math

1. Write two unit ratios that relate the given pair of measures.

Tablespoons and teaspoons

$\frac{T}{t}$; $\frac{t}{T}$ (Simplify your answers.)

2. Write two unit ratios that relate the given pair of measures.

Miles and feet

$\frac{mi}{ft}$; $\frac{ft}{mi}$ (Simplify your answers.)

3. Use unit ratios to convert the units.

10 ft = _____ in (Round to the nearest hundredth as needed.)

4. How many quarts are in 11 gal?

There are _____ quarts in 11 gal. (Round to the nearest hundredth as needed.)

5. Develop two conversion factors for the pair of units.

quarts and gallons

quarts to gallons = _____

(Type a whole number or decimal rounded to four decimal places as needed.)

gallons to quarts = _____

(Type a whole number or decimal rounded to four decimal places as needed.)

6. Use conversion factors to convert units of measure.

How many pounds are in 688 oz?

There are _____ pounds in 688 ounces. (Type a whole number or a decimal.)

7. Use conversion factors to convert units of measure.

How many feet are in 2.2 mi?

There are _____ feet in 2.2 miles. (Type a whole number or adecimal.)

8. Express the measure in standard notation.

7 ft 23 in

The measure in standard notation is _____ ft _____ in.

9. Express the measure in standard notation.

5 gal 5 qt 48 oz

The measure in standard notation is _____ gal _____ qt _____ oz.

10. Add and write the answer in standard notation.

$$\begin{array}{r} 6 \text{ lb } 3 \text{ oz} \\ +\ 3 \text{ lb } 7 \text{ oz} \\ \hline \end{array}$$

11. Add and write the answer in standard notation.

$$\begin{array}{r} 2 \text{ yd } 5 \text{ ft} \\ +\ 1 \text{ yd } 5 \text{ ft} \\ \hline \end{array}$$

.

12. Change to the indicated rate of measure.

$$\frac{16 \text{ lb}}{\text{h}} = \frac{\text{lb}}{\text{min}}$$

$$\frac{16 \text{ lb}}{\text{h}} = \underline{\qquad} \frac{\text{lb}}{\text{min}}$$

23. Doris Johnson has two open containers of sugar. If she combines 3 lb 9 oz from one container with 1 lb 15 oz from the other container, how much total sugar does she have?

Doris has _____ lb _____ oz of sugar.

24. A mechanic has a length of hose 8 ft long. What is the length after 9 in is cut off?

The length is _____ ft _____ in. (Type your answer in standardform.)

25. Rachel Hamilton was amazed when she grew a 39 lb 15 oz squash in her garden, but she later learned that her neighbor grew one that weighed 54 lb 14 oz. How far below this weight was Rachel's squash?

Rachel's squash weighed _____ lb _____ oz less than her neighbor's squash.

26. A room is to be covered with square linoleum tiles that are 1 ft by 1 ft. If the room is 11 ft by 24 ft, how many tiles (square feet) are needed?

_____ tiles (square feet) are needed.

27. A vat holding 10 gal 2 qt of defoliant is emptied equally into 3 tanks. How many gallons and quarts are in each tank?

There are _____ gallon(s) and _____ quart(s) in each tank.

28. A roll of electrical cable 100 ft long is divided into 20 equal sections. How long is each section?

The length of each section is _____ ft. (Simplify your answer.)

29. How many 5-in. pieces can be cut from 20 in. of pipe?

The number of 5-in. pieces that can be cut from 20 in. pipe is _____.
(Simplify your answer.)

30. How many cans weighing 10 oz are in a case if the case weighs 16 lb 14 oz?

There are _____ cans in the case.