Name _____ Date _____ Class _____

SKILL 5: Computing with Customary Measures

Often when you solve problems with customary units of measure, you must change the units of measurement.

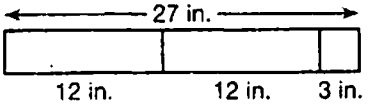
Example 1

Convert: 27 inches to feet and inches.

12 inches = 1 foot, so 24 inches = 2 feet.

27 in. − 24 in. = 3 in.

So, 27 inches = 2 feet 3 inches.



Example 2

Convert: 2 gallons 1 quart = ? quarts.

1 gallon = 4 quarts, so 2 gallons = 8 quarts.

Add the extra quart: 8 quarts + 1 quart = 9 quarts.

So, 2 gallons 1 quart = 9 quarts.

Example 3

Suppose you need 4 feet 5 inches of ribbon to complete an art project. You have 2 feet 10 inches of ribbon. How much more ribbon do you need to complete the project?

Subtract: — You cannot subtract 10 from 5.

4 ft 5 in. → 3 ft 17 in. ← Since 1 ft = 12 in., rename 4 ft 5 in. as 3 ft 17 in.

−2 ft 10 in. −2 ft 10 in.

1 ft 7 in. ← Subtract.

So, you need 1 foot 7 inches more ribbon to complete the project.

Guided Practice

1. Convert : 2 yards 2 feet = ? feet

____ feet = 1 yard

2 yards = ____ feet

So, 2 yards 2 feet = ____ feet.

2. 6 lb 12 oz
+ 3 lb 8 oz

9 lb ____ oz ____ oz = __ lb __ oz

So, 6 lb 12 oz + 3 lb 8 oz = 10 lb 4 oz.

3. Convert: $6\frac{1}{2}$ quarts = ? gallons ? quarts

____ quarts = 1 gallon

$6\frac{1}{2}$ quarts − ____ quarts = ____ quarts

So, $6\frac{1}{2}$ quarts = ____ gal ____ qt.

Name _____ Date _____ Class _____

SKILL 5: Practice

Convert.

1. 31 inches = ___ feet ___ inches
2. 2 pounds 2 ounces = ___ ounces
3. $4\frac{1}{2}$ feet = ___ yard ___ feet
4. 6 gallons 2 quarts = ___ quarts
5. 3 pounds 8 ounces = ___ ounces
6. 24 ounces = ___ pounds ___ ounces
7. 6 feet 3 inches = ___ inches
8. 1 yard 3 inches = ___ inches
9. 15 quarts = ___ gallons ___ quarts
10. $7\frac{1}{3}$ feet = ___ yards ___ feet

Add or subtract. Rename when necessary.

11. 4 ft 8 in. + 5 ft 6 in.
12. 8 gal 1 qt + 3 gal 1 qt
13. 7 yd 1 ft − 4 yd 2 ft
14. 5 gal 3 qt + 2 gal 2 qt
15. 5 lb 3 oz − 2 lb 11 oz
16. 6 ft 7 in. + 5 ft 8 in.
17. 4 yd 2 ft + 3 yd 1 ft
18. 8 lb 10 oz + 3 lb 12 oz
19. 8 ft 3 in. − 4 ft 8 in.
20. 7 lb 6 oz + 5 lb 9 oz
21. 7 gal 1 qt − 2 gal 3 qt
22. 10 lb 5 oz − 5 lb 10 oz

Solve.

23. Alicia bought 3 containers of yogurt. Each container weighs 12 oz. How many pounds and ounces of yogurt did she buy? _____

24. Jacob cut a piece of wood 2 feet 4 inches long from a board that was 6 feet long. How long was the remaining piece of board? _____

25. Subtract: 9 ft − 4 ft 8 in.

Skill 5

A 4 ft 4 in. C 5 ft 4 in.
B 4 ft 8 in. D 5 ft 8 in.

26. How many feet per minute are equivalent to 12 feet per second?

Skill 4

F 2 ft/min H 72 ft/min
G 3 ft/min J 720 ft/min