Name _____ Date _____ Class _____

Skills Readiness

SKILL 21 *Convert Units of Measure*

To convert from one unit of measure to another, you can use a conversion factor and multiply.

Definition: a conversion factor is a fraction equal to 1 whose numerator and denominator have different units.

Common Conversion Factors		
Length	**Capacity**	**Weight**
$\frac{1 \text{ ft}}{12 \text{ in.}}$ or $\frac{12 \text{ in.}}{1 \text{ ft}}$	$\frac{1 \text{ pt}}{2 \text{ c}}$ or $\frac{2 \text{ c}}{1 \text{ pt}}$	
$\frac{1 \text{ yd}}{3 \text{ ft}}$ or $\frac{3 \text{ ft}}{1 \text{ yd}}$	$\frac{1 \text{ qt}}{2 \text{ pt}}$ or $\frac{2 \text{ pt}}{1 \text{ qt}}$	$\frac{1 \text{ lb}}{16 \text{ oz}}$ or $\frac{16 \text{ oz}}{1 \text{ lb}}$
$\frac{1 \text{ mi}}{5280 \text{ ft}}$ or $\frac{5280 \text{ ft}}{1 \text{ mi}}$	$\frac{1 \text{ gal}}{4 \text{ qt}}$ or $\frac{4 \text{ qt}}{1 \text{ gal}}$	$\frac{1 \text{ T}}{2000 \text{ lb}}$ or $\frac{2000 \text{ lb}}{1 \text{ T}}$

Time		Metric	
$\frac{1 \text{ min}}{60 \text{ sec}}$ or $\frac{60 \text{ sec}}{1 \text{ min}}$	$\frac{1 \text{ hr}}{60 \text{ min}}$ or $\frac{60 \text{ min}}{1 \text{ hr}}$	$\frac{1 \text{ m}}{100 \text{ cm}}$ or $\frac{100 \text{ cm}}{1 \text{ m}}$	$\frac{1 \text{ m}}{1000 \text{ mm}}$ or $\frac{1000 \text{ mm}}{1 \text{ m}}$
$\frac{1 \text{ day}}{24 \text{ hr}}$ or $\frac{24 \text{ hr}}{1 \text{ day}}$	$\frac{1 \text{ wk}}{7 \text{ days}}$ of $\frac{7 \text{ days}}{1 \text{ wk}}$	$\frac{1 \text{ km}}{1000 \text{ m}}$ or $\frac{1000 \text{ m}}{1 \text{ km}}$	
	$\frac{1 \text{ yr}}{12 \text{ mo}}$ or $\frac{12 \text{ mo}}{1 \text{ yr}}$	Note: All metric units have the same conversion factors based on the prefix.	

Example: Convert 12 feet to yards. $12 \text{ ft} \cdot \frac{1 \text{ yd}}{3 \text{ ft}} = \frac{12 \text{ yd}}{3} = 4 \text{ yd}$

Practice on Your Own
Convert each unit of measure.

1. 30 months to years
_____

2. 48 inches to feet
_____

3. 3 pounds to ounces
_____

4. 650 centimeters to meters
_____

5. 1.5 days to hours
_____

6. 16 quarts to gallons
_____

7. 7000 pounds to tons
_____

8. 2.2 liters to milliliters
_____

9. 7 yards to feet
_____

Check
Convert each unit of measure.

10. 9.2 meters to centimeters
_____

11. 2.5 hours to minutes
_____

12. 22 pints to quarts
_____

13. 4500 milligrams to grams
_____

14. 56 ounces to pounds
_____

15. 4.5 years to months
_____

Holt McDougal Algebra 1