Solve each problem.

Ex) Every pint is 2 cups. Write an equation to express the total number of cups (Z) in (y) pints.

1) Every liter is 1,000 milliters. Write an equation to express the total number of milliliters (Z) in (y) liters.

2) Every dollar is 100 pennies. Write an equation to express the total number of pennies (Z) in (y) dollars.

3) Every quarter is 25 pennies. Write an equation to express the total number of pennies (Z) in (y) quarters.

4) Every quart is 2 pints. Write an equation to express the total number of pints (Z) in (y) quarts.

5) Every meter is 100 centimeters. Write an equation to express the total number of centimeters (Z) in (y) meters.

6) Every gallon is 4 quarts. Write an equation to express the total number of quarts (Z) in (y) gallons.

7) For each pound there are 16 ounces. Write an equation to express the total number of ounces (Z) in (y) pounds.

8) Every foot is 12 inches. Write an equation to express the total number of inches (Z) in (y) feet.

9) Every cup is 8 ounces. Write an equation to express the total number of ounces (Z) in (y) cups.

10) Every dollar is 10 dimes. Write an equation to express the total number of dimes (Z) in (y) dollars.

11) Every yard is 3 feet. Write an equation to express the total number of feet (Z) in (y) yards.

12) For each kilogram there are 1,000 grams. Write an equation to express the total number of grams (Z) in (y) kilograms.

13) Every dollar is 4 quarters. Write an equation to express the total number of quarters (Z) in (y) dollars.

14) Every centimeter is 10 millimeters. Write an equation to express the total number of millimeters (Z) in (y) centimeters.

15) Every quarter is 5 nickels. Write an equation to express the total number of nickels (Z) in (y) quarters.
### Writing Equations from Ratios

#### Solve each problem.

**Ex.)** Every pint is 2 cups. Write an equation to express the total number of cups \((Z)\) in \((y)\) pints.

1) Every liter is 1,000 milliliters. Write an equation to express the total number of milliliters \((Z)\) in \((y)\) liters.

2) Every dollar is 100 pennies. Write an equation to express the total number of pennies \((Z)\) in \((y)\) dollars.

3) Every quarter is 25 pennies. Write an equation to express the total number of pennies \((Z)\) in \((y)\) quarters.

4) Every quart is 2 pints. Write an equation to express the total number of pints \((Z)\) in \((y)\) quarts.

5) Every meter is 100 centimeters. Write an equation to express the total number of centimeters \((Z)\) in \((y)\) meters.

6) Every gallon is 4 quarts. Write an equation to express the total number of quarts \((Z)\) in \((y)\) gallons.

7) For each pound there are 16 ounces. Write an equation to express the total number of ounces \((Z)\) in \((y)\) pounds.

8) Every foot is 12 inches. Write an equation to express the total number of inches \((Z)\) in \((y)\) feet.

9) Every cup is 8 ounces. Write an equation to express the total number of ounces \((Z)\) in \((y)\) cups.

10) Every dollar is 10 dimes. Write an equation to express the total number of dimes \((Z)\) in \((y)\) dollars.

11) Every yard is 3 feet. Write an equation to express the total number of feet \((Z)\) in \((y)\) yards.

12) For each kilogram there are 1,000 grams. Write an equation to express the total number of grams \((Z)\) in \((y)\) kilograms.

13) Every dollar is 4 quarters. Write an equation to express the total number of quarters \((Z)\) in \((y)\) dollars.

14) Every centimeter is 10 millimeters. Write an equation to express the total number of millimeters \((Z)\) in \((y)\) centimeters.

15) Every quarter is 5 nickels. Write an equation to express the total number of nickels \((Z)\) in \((y)\) quarters.

#### Answers

Ex. \(y \times 2 = Z\)

1. \(y \times 1,000 = Z\)
2. \(y \times 100 = Z\)
3. \(y \times 25 = Z\)
4. \(y \times 2 = Z\)
5. \(y \times 100 = Z\)
6. \(y \times 4 = Z\)
7. \(y \times 16 = Z\)
8. \(y \times 12 = Z\)
9. \(y \times 8 = Z\)
10. \(y \times 10 = Z\)
11. \(y \times 3 = Z\)
12. \(y \times 1,000 = Z\)
13. \(y \times 4 = Z\)
14. \(y \times 10 = Z\)
15. \(y \times 5 = Z\)