Solve each problem.

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

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

2) Every kilometer is 1,000 meters. Write an equation to express the total number of meters \((Z)\) in \((y)\) kilometers.

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

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

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

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

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

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

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

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

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

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

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

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

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

**Answers**

Ex. \( y \times 16 = Z \)

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### Writing Equations from Ratios

**Solve each problem.**

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

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

2) Every kilometer is 1,000 meters. Write an equation to express the total number of meters (Z) in (y) kilometers.

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

**Answers**

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<tbody>
<tr>
<td>Ex.</td>
<td>y × 16 = Z</td>
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<tr>
<td>1.</td>
<td>y × 4 = Z</td>
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<td>2.</td>
<td>y × 1,000 = Z</td>
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<td>y × 2 = Z</td>
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<td>4.</td>
<td>y × 25 = Z</td>
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<td>5.</td>
<td>y × 100 = Z</td>
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<td>6.</td>
<td>y × 12 = Z</td>
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<td>7.</td>
<td>y × 5 = Z</td>
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<td>y × 10 = Z</td>
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<td>10.</td>
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