

# The Language of Math

Believe it or not, you can "speak" math. There are certain words and phrases that translate into math symbols and sentences. Mastering these translations is the key to solving word problems.

## Math Words / Symbols

Equals	Addition	Subtraction	Multiplication	Division
<ul style="list-style-type: none"> <li>• is equal to</li> <li>• the same as</li> <li>• the result of</li> <li>• will be / is</li> <li>• yields / gives</li> </ul>	<ul style="list-style-type: none"> <li>• the sum of</li> <li>• the total of</li> <li>• added to</li> <li>• more than</li> <li>• increased by</li> <li>• plus</li> </ul>	<ul style="list-style-type: none"> <li>• the difference</li> <li>• subtracted from</li> <li>• decreased by</li> <li>• take away / minus</li> <li>• reduced by</li> <li>• less than</li> </ul>	<ul style="list-style-type: none"> <li>• the product of</li> <li>• multiply</li> <li>• times</li> <li>• of</li> </ul>	<ul style="list-style-type: none"> <li>• the quotient of</li> <li>• divided by</li> <li>• ratio of</li> <li>• out of</li> <li>• per</li> </ul>
=	+	–	<b>x, ·, *, (#)(#)</b>	$\frac{\#}{\#}$ , $\div$

## Additional Math Symbols

<b>Not Equal</b> $\neq$	<b>Greater than or equal to</b> $\geq$	<b>Less than or equal to</b> $\leq$	<b>Infinity</b> $\infty$	<b>Percentage</b> $\%$
	<b>Greater than</b> $>$	<b>Less Than</b> $<$		

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## Example:

Translate the following statement:

One half **of** four **is** two

$$\frac{1}{2} \cdot 4 = 2$$

*(Note: Dashed arrows in the original image point from "of" to the multiplication symbol and from "is" to the equals sign.)*

“of ” means to multiply, and “is” means equals

## Practice:

1. The sum of five and seventeen
2. Ten decreased by four is six
3. Six less than eight is two
4. Twice five minus seven
5. Twenty-three added to fifteen totals thirty-eight
6. Twenty divided by four equals five
7. The product of twenty and four
8. The difference between sixteen and fourteen increased by 12
9. Seven plus five decreased by the product of three and two
10. If Jean donates five dollars to Jan's eight dollars, there will be thirteen dollars
11. A number,  $x$ , times its reciprocal is 1

Answers:

- |                  |                    |                          |                                     |
|------------------|--------------------|--------------------------|-------------------------------------|
| 9. $5 + 17$      | 6. $2(5) - 7$      | 3. $20 \cdot 4$          | 1. $8 + 5 = 13$                     |
| 10. $10 - 4 = 6$ | 7. $15 + 23 = 38$  | 4. $(16 - 14) + 12$      | 2. $x \left(\frac{1}{x}\right) = 1$ |
| 11. $8 - 6 = 2$  | 8. $20 \div 4 = 5$ | 5. $7 + 5 - (3 \cdot 2)$ |                                     |