

Mathematical Symbols Defined

Place the phrase(s) under the symbol that it best describes. You will be able to paste the phrase into each box once we have reviewed each symbol.

+	-	×	÷	=
sum ✓	difference ✓	of ✓	quotient ✓	is ✓
increased by ✓	less than ✓	twice ✓	per ✓	total ✓
together ✓	decreased by ✓	product ✓	break or split into groups ✓	is the same as ✓
and ✓	minus ✓	squared ✓	divided by ✓	equal to ✓
plus ✓	fewer than ✓	cubed ✓		
		double ✓		

Inequality Symbols

<	>	≤	≥	≈
is less than ✓	is greater than ✓	is no more than ✓	is greater than or equal to ✓	approximately ✓
	exceeds ✓	at most ✓	is at least ✓	about ✓
		is less than or equal to ✓	minimum ✓	
		maximum ✓		

Grouping Symbols

()	[]	{ }	
	the quantity of ✓		absolute value ✓

Writing Expressions, Equations, and Inequalities

Variable: a letter used to represent one or more numbers. (x, a)

Expression: consists of numbers, variables, and operations (x+7)

Equation: mathematical sentence formed by placing = between two expressions.

Inequality: mathematical sentence formed by placing an inequality symbol ($\neq < >$) between two expressions

What is the difference between an expression and equation?

equation must have =

Translate each of the following phrases or situations:

- 1) 8 more than a number x $x + 8$
- 2) The difference of a number and 7 $x - 7$
- 3) The sum of a number and 16 $x + 16$
- 4) Fifty less than a number $x - 50$ (NOT $50 - x$!)
- 5) A number doubled is greater than the same number and 10
 $2x > x + 10$
- 6) You should not exceed the speed limit of 60 mph $x \leq 60$
- 7) Three times the quantity of a number plus twelve is equal to 36
 $3 \cdot (x + 12) = 36$
- 8) Each person's share if x people share 4 gallons of water equally $x \div 4$ $\frac{x}{4}$ $x/4$
- 9) The total cost for 4 people to ride the bus if the cost of \$0.75 is increased by d dollars

$$4(.75 + d)$$

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: **Homework:** Translation Wkst.
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Adapted: Translation Wkst. (Evens only)