

15.1: Appendix A- Math Symbols and Their Operations

Below is a list of several commonly used symbols in math and statistics. Review the symbols, their meanings, and how they are used. The result of adding is called a *sum*. The result of subtraction is called a *difference*. The result of multiplication is called a *product*. The result of division is called a *quotient*.

Symbol	Interpretation	Example
=	is equal to	$10 = 10$
\neq	is not equal to	$10 \neq 5$
>	is greater than	$10 > x$
<	is less than	$x < 10$
\geq	is greater than or equal to	$10 \geq x$
\leq	is less than or equal to	$x \leq 10$
+	add/sum	$10 + 5 = 15$
-	subtract	$10 - 5 = 5$
\times or \bullet or $*$	multiply	$10 \times 5 = 50$ $10 \bullet 5 = 50$ $10 * 5 = 50$
\div or $/$ or —	divide	$10 \div 5 = 2$ $10 / 5 = 2$ $\frac{10}{5} = 2$
a^2 or $a^{\wedge}2$	square the number (i.e. multiply it by itself)	if $a = 5$ $5^2 = 25$ $5^{\wedge}2 = 25$
\sqrt{a}	find the square root of the number	if $a = 25$ $\sqrt{25} = 5$
[] or ()	indicates expressions within the brackets or parentheses should be done first	$[(2+2) \times (10-5)] = 20$
Σx	Add all instances of the variable X	When $X = 3, 4, \text{ and } 5$ $\Sigma x = 12$

Note

When two sets of parentheses appear next to each other without any symbols between them, it indicates that the numbers within the parentheses are to be multiplied.

Here are some examples:

$$(8)(2) = 16 \quad (3)(12) = 36 \quad (2)(7) = 14 \quad (20)(5) = 100 \quad (4)(5) = 20$$

Evaluate the expressions.

$15 \times 5 =$	$\sqrt{100} =$	$10 - 5 =$
$4^2 =$	$100 \times 8 =$	$2^2 =$
$(5 - 2) =$	$(-9)^2 =$	$\sqrt{9}$
$(12 \div 2) =$	$(4)(3) =$	$10^2 =$

$3 \times 15 =$	$\sqrt{64}$	$75 \div 25 =$
$12^2 =$	$25 \times 10 =$	$(5)(11) =$
$6^2 =$	$1 + 5 =$	$\frac{8}{1} =$
$\sqrt{144} =$	$81 \div 9 =$	$36 / 3 =$
$14 \div 1 =$	$40 / 2 =$	$17 \times 0 =$

Fill in missing pieces using one of these symbols: $= > <$

The first problem has been completed for you.

$15 > 11$	$8 \underline{\hspace{1cm}} -8$	$-5 \underline{\hspace{1cm}} 0$
$ -44 \underline{\hspace{1cm}} 44$	$4 \underline{\hspace{1cm}} -15$	$\frac{1}{2} \underline{\hspace{1cm}} 2$
$9 \underline{\hspace{1cm}} 88$	$ 7 \underline{\hspace{1cm}} -2$	$-10 \underline{\hspace{1cm}} 9$
$-14 \underline{\hspace{1cm}} -37$	$-3 \underline{\hspace{1cm}} 12$	$53 \underline{\hspace{1cm}} 53$
$43 \underline{\hspace{1cm}} 4.3$	$-1 \underline{\hspace{1cm}} -0.1$	$-16.45 \underline{\hspace{1cm}} 6.9$
$-0.98 \underline{\hspace{1cm}} -1.00$	$0.25 \underline{\hspace{1cm}} -2.50$	$-1,152 \underline{\hspace{1cm}} 758$

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