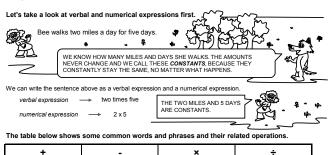


A verbal expression contains words to explain mathematics

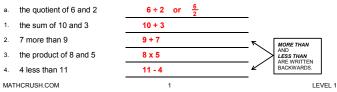
A numerical expression contains a combination of constants (numbers) and operations such as addition, subtraction, multiplication, and division

An algebraic expression contains one or more variables. It usually contains constants (numbers) and at least one oneration



divide plus minus times the sum o the difference of multiplied by the quotient of divided by increased by decreased by the product of more than less than aroups of among

Write a numerical expression for each verbal expression.



EXPRESSIONS - PAGE 2 ANSWERS EXPRESSIONS DO NOT CONTAIN EQUAL SIGNS, BUT TELL ONLY WHICH OPERATIONS TO PERFORM. Write a verbal expression for each numerical expression. 5+8 the sum of 5 and 8 $\frac{7}{3}$ the quotient of 7 and 3 2 less than 9 2 9-2 5 x 3 5 times 3 3. 12 ÷ 6 12 divided by 6 look at algebraic expressions. Now let's take a \$ ine a Stew works at the bank and gets paid \$130.00 everyday he works NY. WE KNOW HOW MUCH HE GETS PAID. IT NEVER CHANGES AND IF YOU FORGOT, WE CALL THIS A **CONSTANT**. BUT HOW MANY DAYS DOES HE WORK? IN MATH, WE CALL THIS A **VARIABLE** BECAUSE IT CAN CHANGE. USUALLY WE USE LETTERS TO REPRESENT AN UNKNOWN AMOUNT. L We can write the sentence above as an algebraic expression and a verbal expression THE \$130.00 IS THE CONSTANT algebraic expression ----- \$130.00 x d AND "d" IS THE VARIABLE. "d" REPRESENTS THE NUMBER OF DAYS I WORK. verbal expression ---- the product of \$130.00 and d Below are a couple examples of algebraic expressions. <u>t</u> 8 v - 5 4z y is the variable and 5 is the constant. t means t ÷ 8. 4z means 4 x z Write an algebraic expression for each verbal expression. the difference of 8 and a number b. 8 - n $\frac{n}{7}$ a number divided by 7 5. 4 more than 2 times a number 2n + 4 6 12 the quotient of 12 and a number 7. 5n + 6 8. the sum of 5 times a number and 6

g + 8

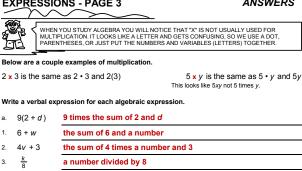
2

Write an algebraic expression for the phrase below.

9. eight more girls in a classroom

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EXPRESSIONS - PAGE 3



the difference of a number and 7 *m* - 7 5 ÷ v the quotient of 5 and a number

Call.

а

4

5.

5 25

DON'T FORGET PARENTHESES, BRACKETS, AND BRACES ARE GROUPING SYMBOLS THAT TELL US TO DO THE OPERATION OR OPERATIONS THAT ARE INSIDE THE SYMBOLS FIRST. THIS GETS A LITTLE CONFUSING WHEN WRITING EXPRESSIONS. CHECK OUT HOW THE EXPRESSIONS BELOW CHANGE WHEN GROUPING SYMBOLS ARE INCLUDED.

VERBAL EXPRESSION

VENDAL EXFREGSION	ALOLDINAIO EXI NEODION			
4 plus the product of 9 and a number	4 + 9a			
the product of 4 plus 9 and a number	(4 + 9) • a			
the sum of 8 subtracted by a number and 5	8 - <i>n</i> + 5			
8 subtracted by the sum of 5 and a number	8 - [<i>n</i> + 5]			
the difference of 3 and a number divided by 9	3 - d ÷ 9			
the difference of 3 and a number, divided by 9	{3 - <i>d</i> } ÷ 9			
Now your turn. Write an algebraic expression for each verbal expression.				
6. the quotient of 6 plus a number and 4	(6 + <i>n</i>) ÷ 4			

7.	7. 7 decreased by the sum of 3 and a number		7 - (3 + <i>n</i>)	
8. 9 plus the quotient of a number and 5			9 + (n ÷ 5)	
9.	9. the sum of 2 and a number, multiplied by 8		(2 + <i>n</i>) • 8	
MA	THCRUSH.COM	3		LEVEL 1

EXPRES	SIONS - REVIEW			
Write a num	erical or algebraic expression for each v	verbal expression.		
1. 9 decre	eased by 4	9 - 4		
2. five tim	ies a number	5n		
3. the sur	n of 7 and a number, divided by 2	$(7+n) \div 2$ or $\frac{7+n}{2}$		
4. 14 less	than 3	3 - 14		
5. the pro	duct of 6 and b	6 <i>b</i>		
6. 8 more	than 4 times a number	4 <i>n</i> + 8		
7. the quo	the quotient of 22 and 4 $22 \div 4$ or $\frac{22}{4}$			
8. 5 times	the difference of a number and 7	5(<i>n</i> - 7)		
Write a verb	al expression for each algebraic or num	erical expression.		
9. 7b	seven times a number			
10. $4 + \frac{k}{2}$	the sum of 4 and a number d	ivided by 8		

10.	$4 + \frac{\kappa}{8}$	the sum of 4 and a number divided by 8
11.	6 + 10	the sum of 6 and 10
12.	$(2+n) \cdot 5$	the sum of 2 and a number, multiplied by 5
13.	<u>t</u> 6	a number divided by 6
14.	5 - 12	the difference of 5 and 12
15.	(e + 9) ÷ 3	the quotient of a number plus 9 and 3
16.	2(k + 8)	two times the sum of a number and 8

Write an algebraic expression for each phrase

LEVEL 1

17. a number of pencils less than 15 15 - p 18. a car travels 60 miles per hour 60h 19. a bag of apples shared equally among 6 people a ÷ 6 or 20. 9 centimeters taller than Kern k + 9

Challenge yourself. Write an algebraic expression for this sentence

21. A container has 50 gallons of water and is being filled at a rate of 4 gallons per minute. MATHCRUSH.COM LEVEL 1

ANSWERS

ALGEBRAIC EXPRESSION