Variables and Expressions

A **variable** is a letter or symbol. It represents an unknown amount that can change.

You can do mathematical operations with variables and numbers.

You can state these operations in word expressions. You can also state them in algebraic expressions.

Operation	$+$	$-$	$\times$	$\div$
Word expression	the sum of r and 3	the difference between r and 3	the product of r and 3	r divided by 3
Algebraic expression	$r + 3$	$r - 3$	$3r$	$r \div 3$
Other ways of saying the word expression	3 added to r 3 more than r	3 subtracted from r 3 less than r	r multiplied by 3 3 times r	r separated into 3 equal parts

Complete the algebraic expression for each of the following word expressions.

1. the sum of b and 8

b ____ 8

2. the difference between m and 6

m ____ 6

3. the quotient of k and 16

k ____ 16

4. 7 less than z

z ____ 7

5. 2 more than d

d ____ 2

6. j divided by 4

j ____ 4

Circle the letter of the correct word expression for each algebraic expression.

7. $t - 13$ a. 13 subtracted from t b. t subtracted from 13

8. $4n$ a. 4 more than n b. 4 times n

9. $11 + s$ a. 11 more than s b. 11 less than s

10. $45a$ a. the product of a and 45   b. 45 more than a

11. $y \div 6$ a. y less 6   b. 6 equal parts of y

12. $v - 5$ a. 5 less than v b. v subtracted from 5