

Variables and Expressions

Word Phrase	Operation	Algebraic Expression
<ul style="list-style-type: none"> • six more than a number • the sum of 5 and a number t 	Addition	$n + 6$ $5 + t$
<ul style="list-style-type: none"> • three less than a number n • the difference of 7 and a number t 	Subtraction	$n - 3$ $7 - t$
<ul style="list-style-type: none"> • the product of 9 and a number n • 12 times a number b 	Multiplication	$9 \times n$ or $9n$ or $9 \cdot n$ $b \times 12$
<ul style="list-style-type: none"> • the quotient of a number g divided by 3 	Division	$g \div 3$ or $\frac{g}{3}$

To evaluate $23n$ for $n = 5$, substitute 5 for n , and multiply.

$$23 \times 5 = 115$$

Write each word phrase as an algebraic expression.

- 25 more than p _____
- the product of s and 7 _____
- 14 decreased by e _____
- n divided by 18 _____

Evaluate each expression for $b = 6$.

- $b \times 5$ _____
- $19 + b$ _____
- $42 \div b$ _____

For 8–11, evaluate each expression for $n = 3, 5,$ and 7 .

- $n - 1$ _____, _____, _____
- $n + 13$ _____, _____, _____
- $9n$ _____, _____, _____
- $\frac{105}{n}$ _____, _____, _____

12. **Number Sense** Write $11n$ as a word phrase in two different ways.

Variables and Expressions

Write each word phrase as an algebraic expression.

1. twice n

2. 3 less than p

3. c increased by 6

4. m times 31

5. $5d$ minus 4

6. 50 divided by t

7. **Number Sense** What is a word phrase for $42 + 36 + n$?

Evaluate each expression for $y = 2, 6,$ and 8 .

8. $y + 12$ _____, _____, _____

9. $\frac{96}{y}$ _____, _____, _____

10. $5y$ _____, _____, _____

11. $\frac{y}{2}$ _____, _____, _____

12. $11y$ _____, _____, _____

13. $561 - y$ _____, _____, _____

14. A state produces b peaches per month. Write an expression for the average number of peaches produced each year.

15. The Oregon Dunes national resource area in Oregon covers 27,212 acres. Another national resource area in New Mexico covers v acres. Write an expression that shows the approximate number of acres covered by both areas.

Test Prep

16. Evaluate the expression $10f$ if $f = 31$.

A. 3.1

B. 31

C. 310

D. 3,100

17. **Writing in Math** Write two different word phrases for $5h$.
