

## Variables and Expressions Assignment

Write an algebraic expression for each verbal expression.

1. One-fourth the cube of  $x$
2. The ratio between  $m$  and  $v$
3. The product of  $w$  and  $h$
4. Six more than two times a number
5. Three times the quantity eight plus  $x$
6. Nine divided by  $x$
7.  $n$  plus five squared
8. Four divide by a number

Find each value.

9.  $15^3$
10.  $3^5$
11.  $10^4$
12.  $7^2$

Write a verbal expression for each algebraic expression.

13.  $27 - 2x$
14.  $3x^2 + 4$
15.  $15y$
16.  $3x^2 - 2x$
17.  $5^4$
18.  $6x - 2$
19.  $2x + 16$
20.  $4 \div n$

# Variables and Expressions Assignment

**ANSWER** | Write an algebraic expression for each verbal expression.

- One-fourth the cube of  $x$   $= \frac{1}{4}x^3$
- The ratio between  $m$  and  $v$   $= \frac{m}{v}$
- The product of  $w$  and  $h$   $= w \cdot h$
- Six more than two times a number  $= 6 + 2x$
- Three times the quantity eight plus  $x$   $= 3(8 + x)$
- Nine divided by  $x$   $= \frac{9}{x}$
- $n$  plus five squared  $= n + 5^2$
- Four divide by a number  $= \frac{4}{x}$

Find each value.

- $15^3 = 15 \cdot 15 \cdot 15 = 3375$
- $3^5 = 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 = 243$
- $10^4 = 10 \cdot 10 \cdot 10 \cdot 10 = 10\,000$
- $7^2 = 7 \cdot 7 = 49$

Write a verbal expression for each algebraic expression.

- $27 - 2x$  = the difference of twenty seven and twice a number  $x$
- $3x^2 + 4$  = three times  $x$  squared plus four
- $15y$  = fifteen times  $y$
- $3x^2 - 2x$  = three times  $x$  squared minus twice a number  $x$
- $5^4$  = five to the fourth power
- $6x - 2$  = six times  $x$  minus two
- $2x + 16$  = twice a number  $x$  plus sixteen
- $4 \div n$  = four divided by  $n$