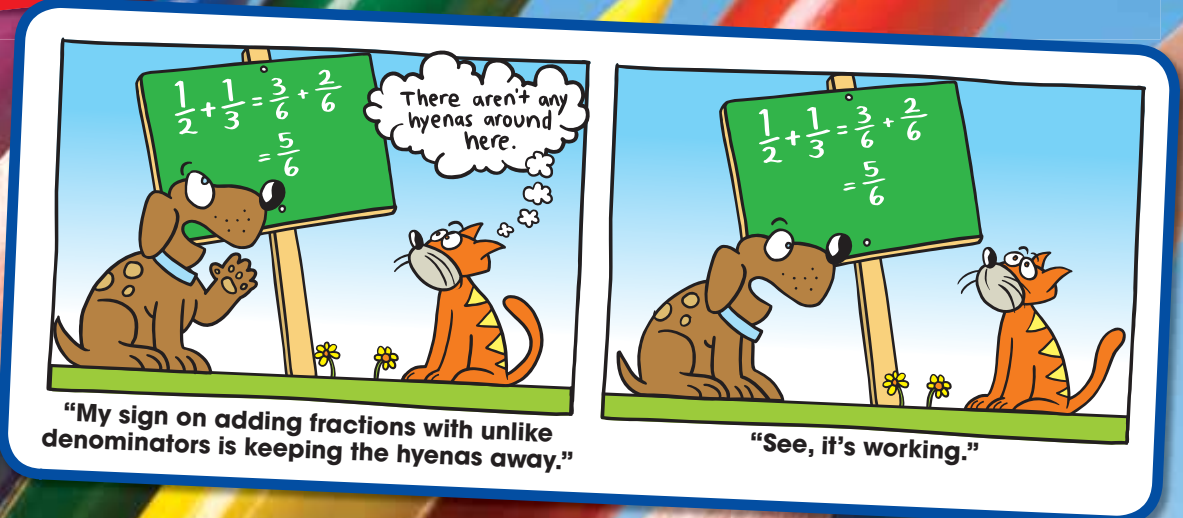
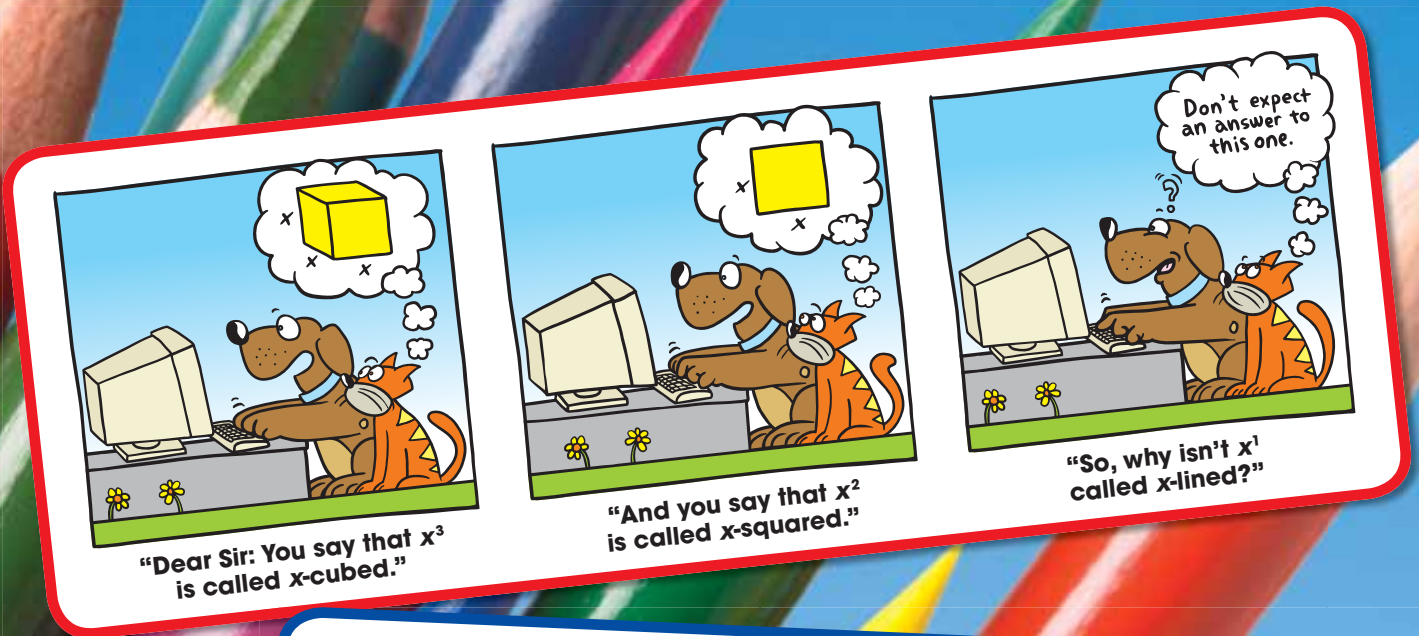


1 Expressions and Number Properties

- 1.1 Evaluating Algebraic Expressions
- 1.2 Writing Expressions
- 1.3 Properties of Addition and Multiplication
- 1.4 The Distributive Property
- 1.5 Using Formulas to Solve Problems




What You Learned Before

Finding Area

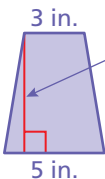
Find the area of each figure.

Example 1 Rectangle



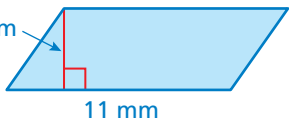
$$\begin{aligned}
 A &= bh \\
 &= 4 \cdot 2 \\
 &= 8 \text{ cm}^2
 \end{aligned}$$

Example 2 Trapezoid



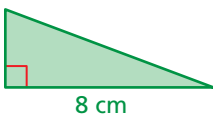
$$\begin{aligned}
 A &= h(b + B) \div 2 \\
 &= 6(3 + 5) \div 2 \\
 &= 48 \div 2 \\
 &= 24 \text{ in.}^2
 \end{aligned}$$

Example 3 Parallelogram



$$\begin{aligned}
 A &= bh \\
 &= 11 \cdot 4 \\
 &= 44 \text{ mm}^2
 \end{aligned}$$

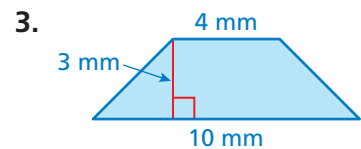
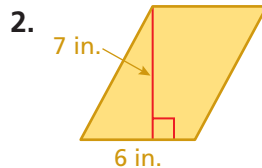
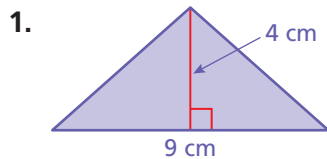
Example 4 Triangle



$$\begin{aligned}
 A &= bh \div 2 \\
 &= 8 \cdot 3 \div 2 \\
 &= 24 \div 2 \\
 &= 12 \text{ cm}^2
 \end{aligned}$$

Try It Yourself

Find the area.



Using Order of Operations

Example 5 Simplify $4^2 \div 2 + 3(9 - 5)$.

First: Parentheses

Second: Exponents

Third: Multiplication and Division (from left to right)

Fourth: Addition and Subtraction (from left to right)

$$\begin{aligned}
 4^2 \div 2 + 3(9 - 5) &= 4^2 \div 2 + 3 \cdot 4 \\
 &= 16 \div 2 + 3 \cdot 4 \\
 &= 8 + 12 \\
 &= 20
 \end{aligned}$$

Try It Yourself

Simplify the expression.

4. $3^2 + 5(4 - 2)$

5. $3 + 4 \div 2$

6. $10 \div 5 \cdot 3$

7. $4(3^3 - 8) \div 2$

8. $3 \cdot 6 - 4 \div 2$

9. $12 + 7 \cdot 3 - 24$

