

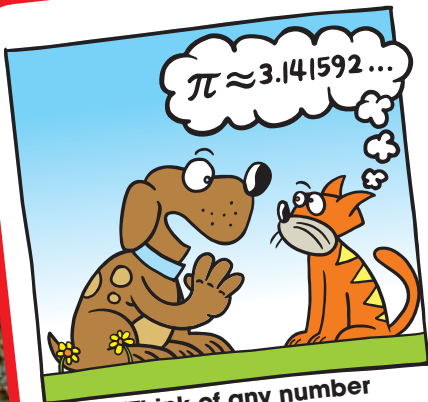
# 6 Circles and Area

6.1 Circles and Circumference

6.2 Perimeters of Composite Figures

6.3 Areas of Circles

6.4 Areas of Composite Figures



"Think of any number between 1 and 9."



"Okay, now add 4 to the number, multiply by 3, subtract 12, and divide by your original number."



"You end up with 3, don't you?"



"What do you get when you divide the circumference of a jack-o-lantern by its diameter?"



"Pumpkin pi, HE HE HE."

# What You Learned Before

## Classifying Figures

Identify the basic shapes in the figure.

Example 1

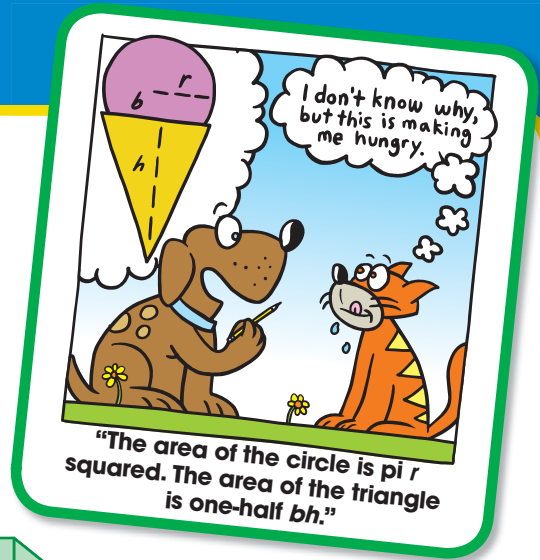


☘ Rectangle, right triangle

Example 2

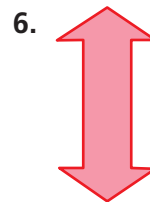
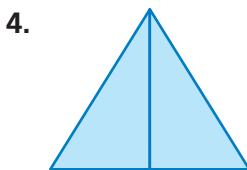
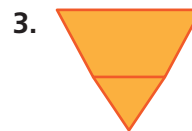
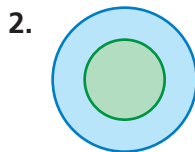
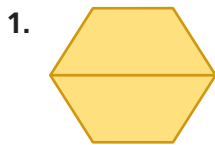


☘ Semicircle, square, and triangle



## Try It Yourself

Identify the basic shapes in the figure.



## Squaring Numbers and Using Order of Operations

Example 3 Evaluate  $4^2$ .

$$4^2 = 4 \cdot 4 = 16$$

$4^2$  means to multiply 4 by itself.

Example 4 Evaluate  $3 \cdot 6^2$ .

$$3 \cdot 6^2 = 3 \cdot (6 \cdot 6) = 3 \cdot 36 = 108$$

Use order of operations. Evaluate the exponent, and then multiply.

## Try It Yourself

Evaluate the expression.

7.  $5^2$

8.  $12^2$

9.  $3 \cdot 2^2$

10.  $4 \cdot 7^2$

11.  $3(1 + 8)^2$

12.  $2(3 + 7)^2 - 3 \cdot 4$