3.2

ANGLES OF TRIANGLES

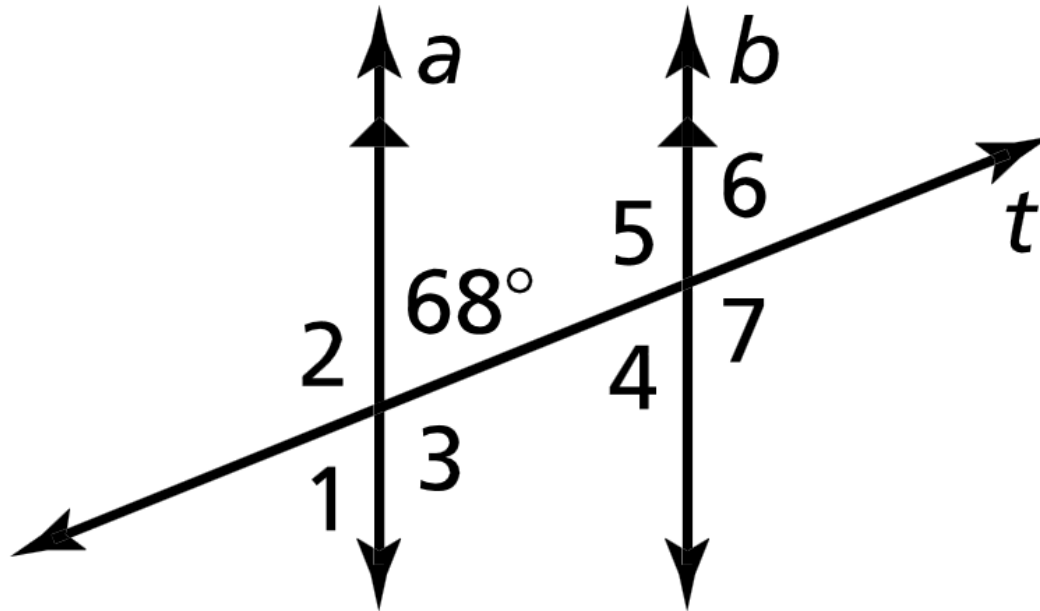# Do Now

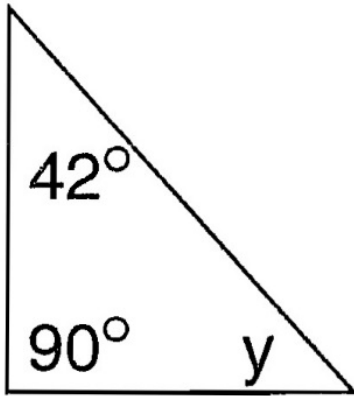**1)** Use the figure to find the measures of
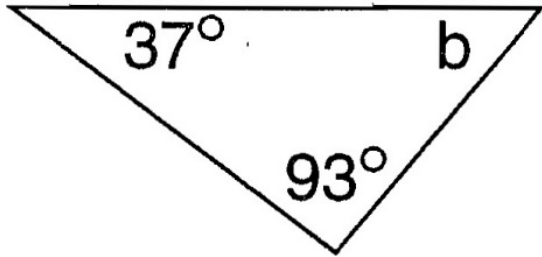(a) ∠1 and (b) ∠2.
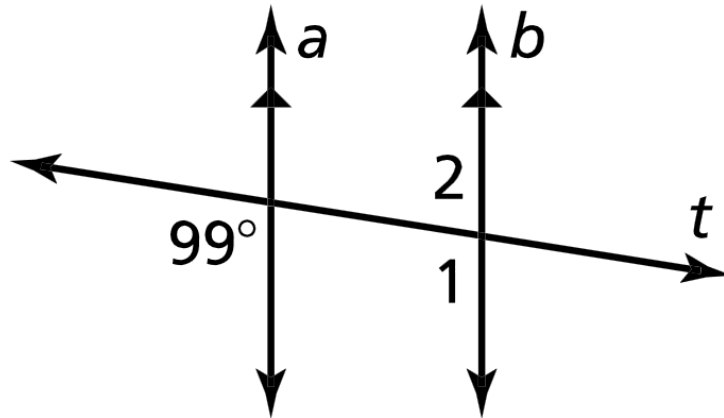
Do Now

2)

What do all the interior angles add up to in a triangle?

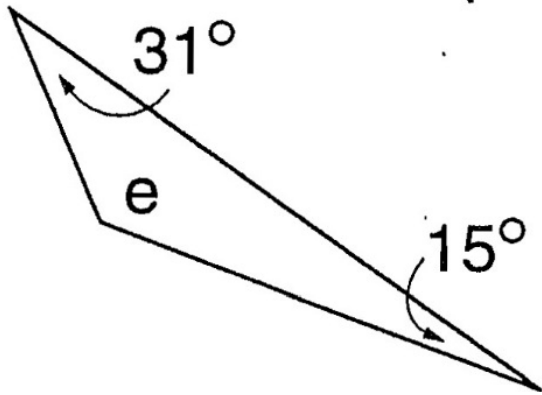1) **Find the missing angle.**

What do all the interior angles add up to in a triangle?
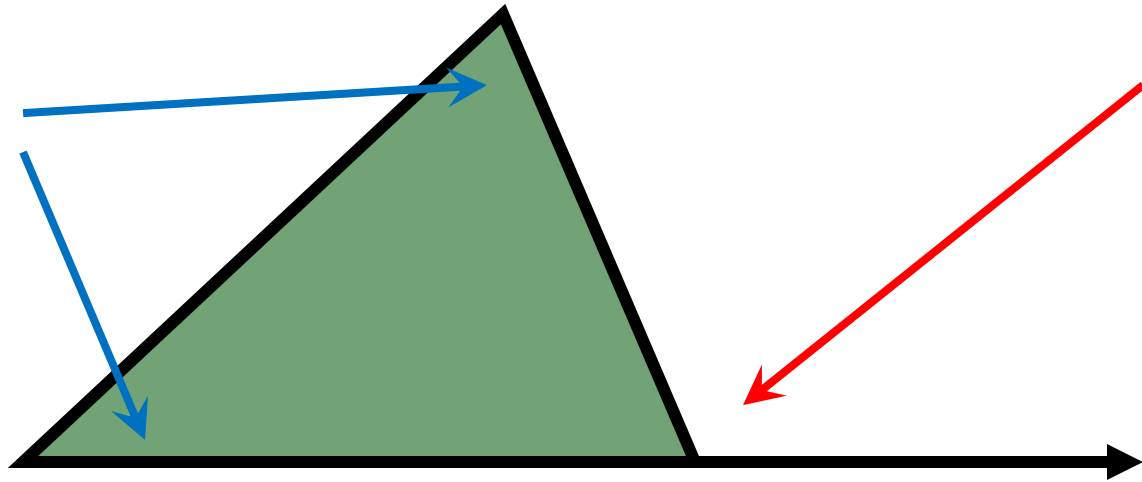
2) **Find the missing angle.**

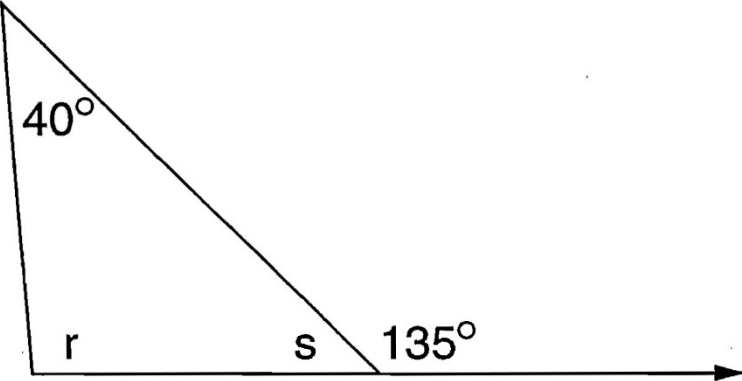# What do all the interior angles add up to in a triangle?

3) Find the missing angle.

31°

e

15°

Exterior Angle

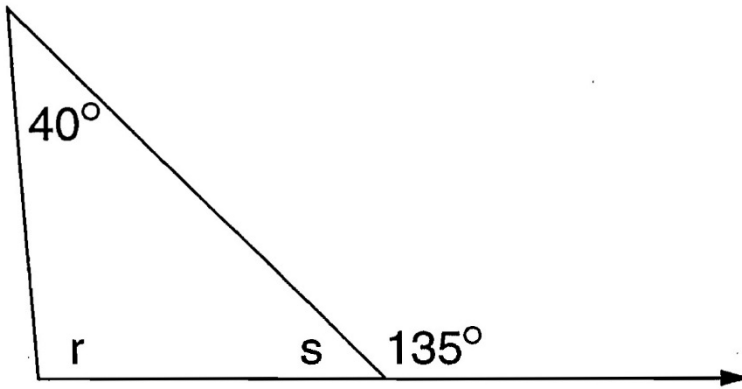**If you extend one side of a triangle from the vertex, you form an exterior angle.**

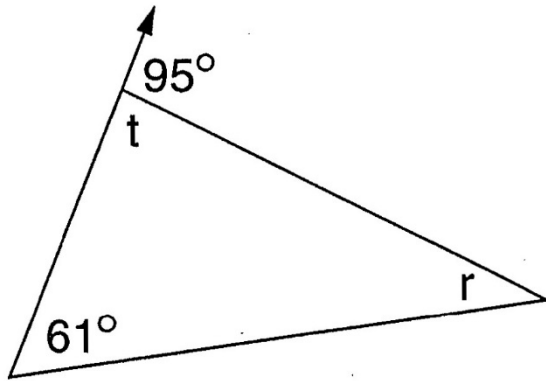**Find the missing variables.**

4)

40°

r   s   135°

Find the missing variables.

5)

40°

r

s

135°

Find the missing variables.

6)

95°

t

61°

r

Triangle Interior Angles Sum

The ___ of all the _____ in a triangle is ____ .

Triangle Exterior Angle Sum

The measure of an exterior angle of a triangle is _____ to the ____ of the _____ _____ _____ .

Review: Solving Multi-Step Equations

$a) \ 7x + (2x + 12) = 39$

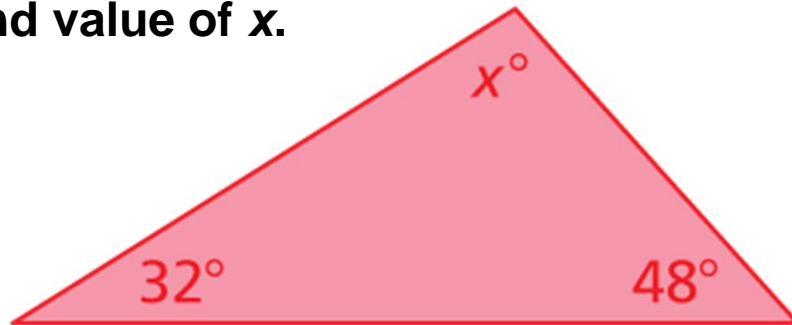# Review: Solving Multi-Step Equations

$b)$ $14 + 8g - 6 = 40$

Review: Solving Multi-Step Equations
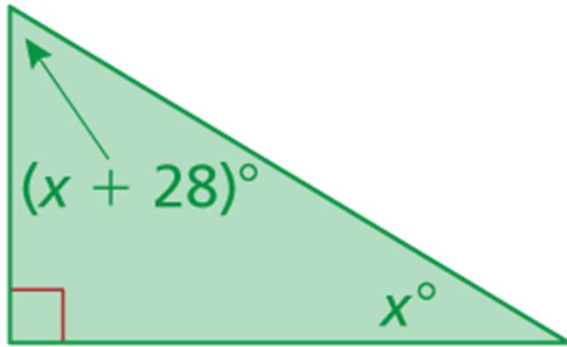
$c)\quad (x+1) + 4x + (10x-10) = 24$
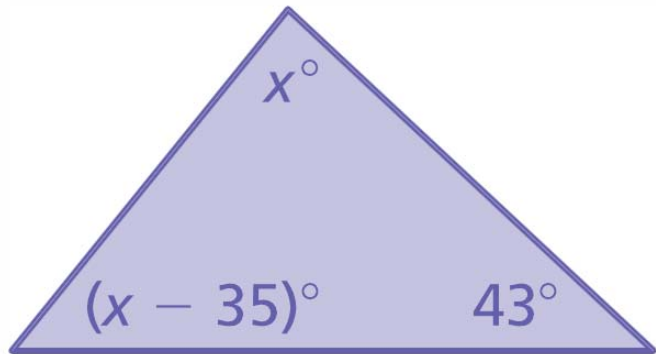
Putting it all together...

7) Find value of *x*.
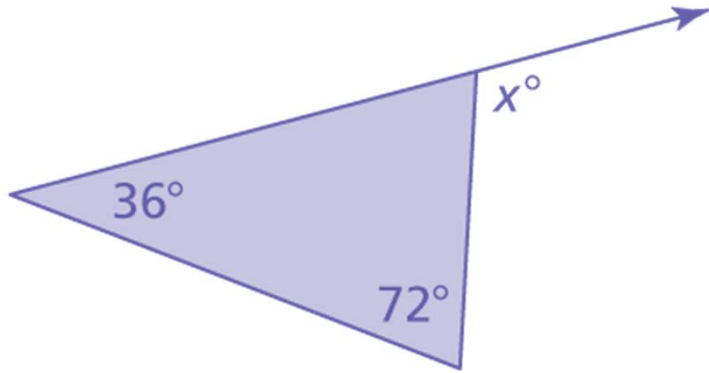
Putting it all together...

8) Find value of _x_.

A right triangle with the top-left vertex angle labeled $(x + 28)°$, the bottom-left angle marked as a right angle, and the bottom-right angle labeled $x°$.

Putting it all together...

9) Find value of *x*.

$x°$

$(x - 35)°$ $43°$

Find the missing variables.

10)

Find the missing variables.

10)

80°

(a − 5)°

2a°