

## What's Going On?

**Checking In**

**Minds on**

One Last Thing

**Action!**

The Big Ideas

**Consolidation**

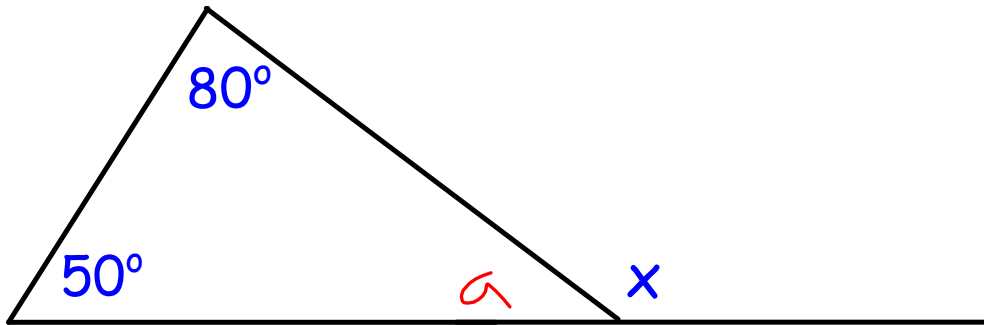
Practice Questions

**Learning Goal - I will review my Geometric Relationships!**

**Action!**

## One Last Little Thing

Find the measure of angle  $x$

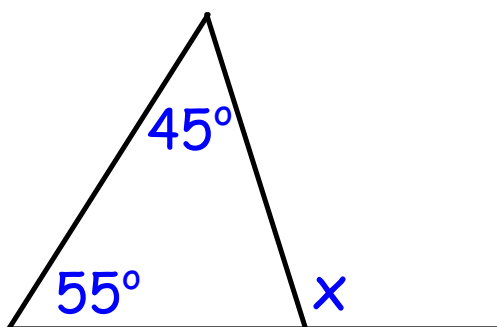


$$a = 50^\circ \text{ by IAT}$$
$$x = 130^\circ \text{ by SAT}$$

**Action!**

## One Last Little Thing

Find the measure of angle  $x$

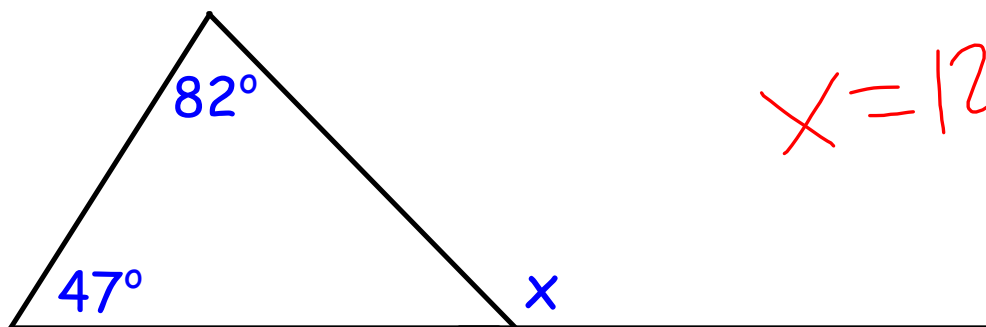


$$x = 100^\circ$$

**Action!**

## One Last Little Thing

Find the measure of angle  $x$

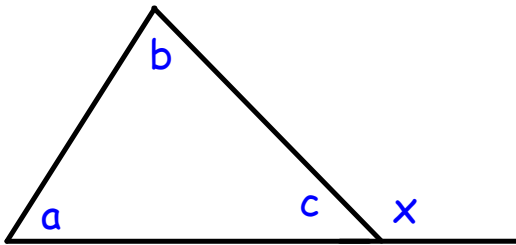


$$x = 129^\circ$$

**Action!**

## One Last Little Thing

Find the measure of angle  $x$



We know that  $a + b + c = 180$  (IAT)

We know that  $c + x = 180$  (SAT)

$$x = a + b$$

**The exterior angle at each vertex of a triangle is equal to the sum of the interior angles at the other two vertices.**

**Action!**

## The Big Ideas

**SAT** - Supplementary Angle Theorem

Angles along a straight line add to  $180^\circ$ .

**IAT** - Interior Angle Theorem

The sum of the interior angles of a polygon is  $S = 180(n-2)$  where  $n$  is the number of sides the polygon has.

**EAT** - Exterior Angle Theorem

The sum of the exterior angles of any polygon is  $360^\circ$ .

**Action!**

## The Big Ideas

$$S = 180(n - 2)$$

1. Given the number of sides ( $n$ ), plug in  $n$  and solve.

↳ Subtract 2 from  $n$  and multiply by  $180^\circ$ .

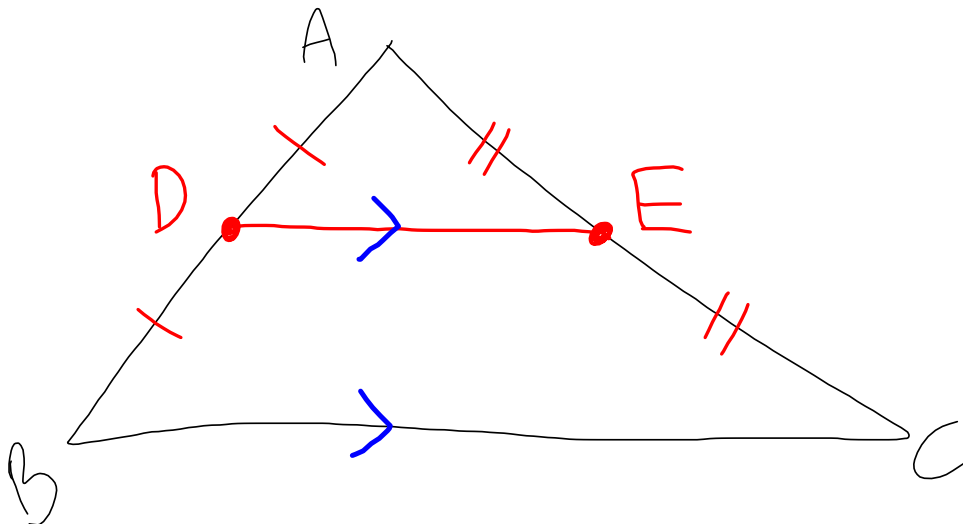
2. Given  $S$ , solve for number of sides.

↳ Divide by 180, add 2.

**Action!**

## The Big Ideas

### Midpoints and Medians in Triangles



If you connect the midpoints of two sides in a triangle. The line you get is parallel to the third side and half as long.

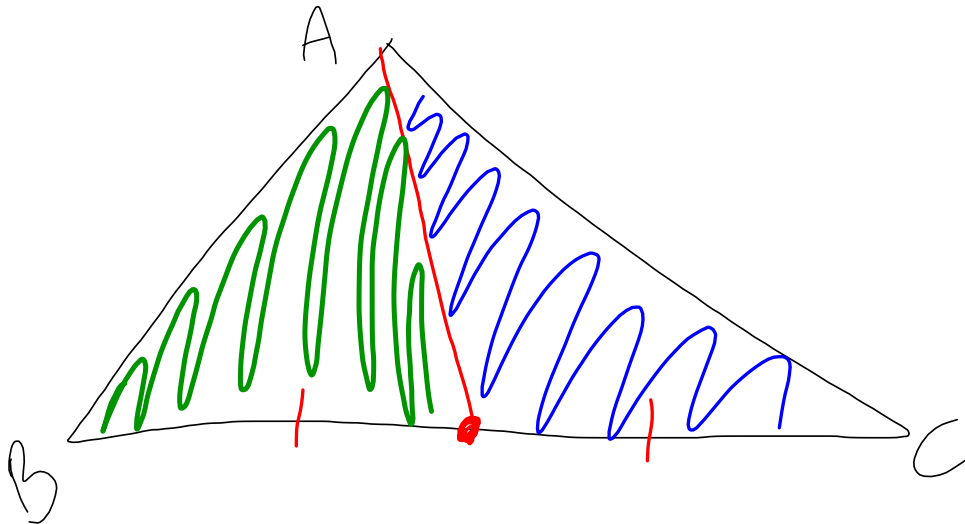
The small triangle that is created, has a quarter the area of the original.



**Action!**

# The Big Ideas

## Midpoints and Medians in Triangles

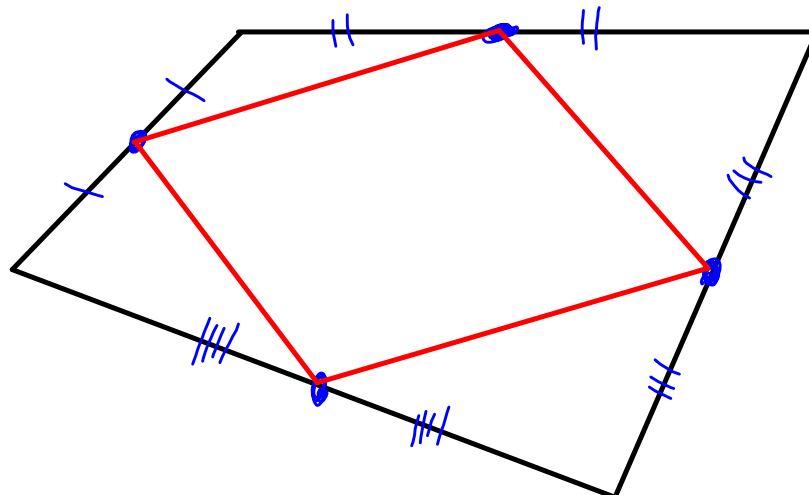


The medians of a triangle bisect its area.

**Action!**

## The Big Ideas

### Midpoints and Diagonals in Quadrilaterals

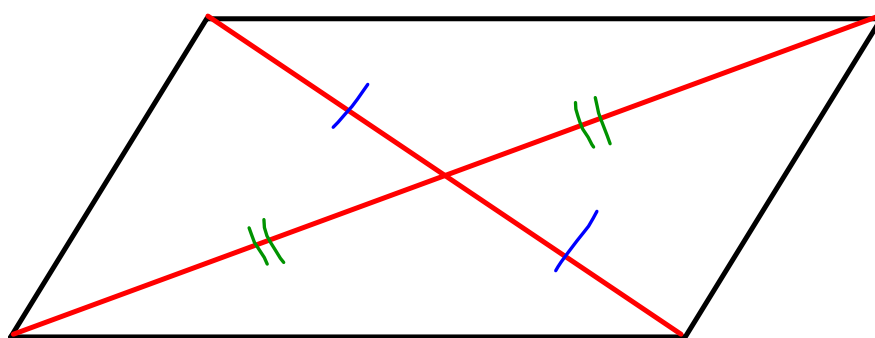


If you connect the midpoints of a quadrilateral, you create a parallelogram inside.

**Action!**

## The Big Ideas

### Midpoints and Diagonals in Quadrilaterals



The diagonals of a parallelogram bisect each other.

## Consolidation

# Practice Questions