Triangle and polygon angles

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Name: _____ Class: _____ Date: _____

Worked example 1

Two interior angles are 42° and 68°. Find the third angle with a reason.

Guided attempt 2

A convex pentagon is divided from one vertex into triangles. Complete the count and find its interior-angle sum.

1. Number of triangles=5−___=___.
2. Interior sum=___×180°=___.

Prerequisite 3

An interior angle is 65°. Find its adjacent exterior angle.

Prerequisite 4

A right triangle has one acute angle 32°. Find the other acute angle.

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Independent practice 5

Two interior angles of a triangle are 37° and 76°. Find the remaining angle.

Independent practice 6

The two remote interior angles to a triangle exterior angle are 48° and 57°. Find the exterior angle.

Independent practice 7

Find the sum of the interior angles of a convex hexagon.

Independent practice 8

Every exterior angle of a regular convex polygon is 24°. How many sides does it have?

Exit question 9

A triangle interior angle is 112°. Find its adjacent exterior angle.

Exit question 10

What is the sum of one exterior angle at each vertex of a convex nonagon, all taken in the same direction?