DO NOW

GEOMETRY · 5 MINUTES · START RIGHT AWAY

Lesson 11-1b

Apply Euler's Formula

Name _____ Date _____ Per _____

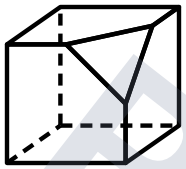
1 FLUENCY

A polyhedron has 12 faces and 30 edges. How many vertices does it have?

$V = E + 2 - F =$ ☐

2 VISUAL MODEL

One corner of a cube is cut off. Count the faces and vertices, then use Euler's Formula to find the edges.



$F =$ ☐

$V =$ ☐

$E =$ ☐

3 APPLICATION

A soccer ball is stitched like a polyhedron with 32 faces and 60 vertices. Each edge is one seam. How many seams does the ball have?

seams = ☐

WORK

4 REASONING

Select TWO sets of (F, V, E) that could belong to a polyhedron.

(A) (8, 6, 12)

(B) (5, 6, 10)

(C) (6, 6, 10)

(D) (9, 9, 15)

_____

*We don't divide our effort, we **multiply** it!*

✎ Show your work ✓ Check your work ★ Try your best

Preview - the full worksheet and its answer key are at primeworksheet.com