

Determine Surface Area of Pyramids

Lesson 5-8

Name: Type your name

Date: Today's date

Class: Class period



TODAY'S OBJECTIVES

Content Objective: I can find the surface area of a pyramid by adding the base area and the lateral faces.

Language Objective: I can explain my work using the words pyramid, slant height, lateral face, and base.



See **Learn It** for the explanation and worked examples, and the **Vocab** tab for the words. These are your notes to fill in and keep.



Fill in each blank as we go. Use the Word Bank to help you.



WORD BANK — FILL EACH BLANK WITH THE BEST WORD

Surface Area of Pyramids

Pyramid

Slant height

Lateral face

Base

Apex

Lateral area



Tap any word to see what it means and a picture.

1

The total area of a pyramid's faces, found with $SA = B + \text{lateral area}$, is the

2

A solid with a polygon base and triangular faces meeting at one point is a

3

The height of a triangular face of a pyramid, measured along the slanted side, is the

4

A triangular side face of a pyramid is a

5

The polygon on the bottom of a pyramid is the

- 6 The single top point where the triangular faces of a pyramid meet is the

.

- 7 The combined area of all the side faces, not counting the base, is the

.

Write About the Math

How much will the glass for all 4 triangular sides cost? (The base is open — no glass needed.)?

¿Cuánto costará el vidrio de los 4 lados triangulares? (La base está abierta — no necesita vidrio.)?

Say your answer to a partner first. Then write it, using at least two of these words:

☐

Surface Area of Pyramids

Área de superficie de pirámides

☐

Pyramid

Pirámide

☐

Slant height

Altura inclinada (apotema)

☐

Lateral face

Cara lateral

☐

Base

Base

Model: Surface area of a pyramid is the base area plus the areas of all the triangular lateral faces. — Students explain a square pyramid's surface area = base area + the four triangular lateral faces, and that you add every face together.

Start

Complete the frames. Use the word bank.

Completa las oraciones. Usa el banco de palabras.

- **Each triangular face has area** = $\frac{1}{2} \times \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ ft}^2$. **Four faces:** $4 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ ft}^2$.
Cost: $\underline{\hspace{1cm}} \times \$12 = \$\underline{\hspace{1cm}}$.
- **My answer is** $\underline{\hspace{1cm}}$ **because** $\underline{\hspace{1cm}}$.
Mi respuesta es $\underline{\hspace{1cm}}$ *porque* $\underline{\hspace{1cm}}$.

Build

Write two connected sentences. Use because, so, or but.

Escribe dos oraciones conectadas. Usa porque, entonces o pero.

- **My claim is** $\underline{\hspace{1cm}}$.
Mi afirmación es $\underline{\hspace{1cm}}$.

- **My evidence is** ____, **so** ____.

Mi evidencia es ____, *entonces* ____.

Explain

Write a claim, give math evidence, and explain your reasoning.

Escribe una afirmación, da evidencia matemática y explica tu razonamiento.

☐ I answered the question.

☐ I used math evidence: numbers, an equation, or a model.

☐ I used at least two math words.