Name_____ Date_____ Period_____

LESSON 5-8 · SESSION 2 · PREREQUISITE PRACTICE B · SKILL 1 OF 2

Surface Area of Pyramids

Builds on Lesson 5-8 Session 1 · 6.G.A.4

TODAY'S LESSON	You will find lateral area: surface area without the base, like the open tent.
YOU NEED TO	Find a square pyramid's surface area: base + 4 faces. **You will use it in Practice Form A, problems 3 and 6.**

STEPS TO FOLLOW

use these same steps on every problem

1. **Base**: side × side.
2. **Faces**: ½ × base edge × slant height, then × 4.
3. **Add** the base and the 4 faces.

WATCH ME

the steps in action

A square pyramid has base 11 in and slant height 14 in. Find its surface area.

Step 1 Base: 11 × 11 = 121.

Step 2 One face: ½ × 11 × 14 = 77. Four faces: 308.

Step 3 121 + 308 = 429.

Answer **429 in²**

TRY IT WITH HELP

fill in each step

1. A square pyramid has base 6 cm and slant height 7 cm. Find its surface area.

Step 1 Base: 6 × 6 = _____

Step 2 One face: ½ × 6 × 7 = _____. Four faces: _____

Step 3 36 + 84 = _____ cm²

2. A square pyramid has base 8 m and slant height 13 m. Find its surface area.

Step 1 Base: 8 × 8 = _____

Step 2 One face: ½ × 8 × 13 = _____. Four faces: _____

Step 3 64 + 208 = _____ m²

YOUR TURN

use the steps on your own

3. Find each surface area (base, slant height).

a. base 5, slant 6 _____

b. base 10, slant 12 _____

c. base 4, slant 9 _____

d. base 12, slant 15 _____

Area of Equal Triangles

Builds on Lesson 5-4 Session 1 · 6.G.A.1

TODAY'S LESSON	You will find lateral area: one slanted face × the number of faces.
YOU NEED TO	Find the area of equal triangles: one triangle × how many. **You will use it in Practice Form A, problems 2, 4, and 5.**

STEPS TO FOLLOW

use these same steps on every problem

1. **Find** one triangle: ½ × b × h.
2. **Count** the equal triangles.
3. **Multiply**: one triangle × the count.

WATCH ME

the steps in action

3 equal triangles each have b = 16 cm and h = 11 cm. Find the total area.

Step 1 ½ × 16 × 11 = 88.

Step 2 Count: 3.

Step 3 3 × 88 = 264.

Answer **264 cm²**

TRY IT WITH HELP

fill in each step

4. 4 equal triangles each have b = 10 in and h = 7 in. Find the total area.

Step 1 ½ × 10 × 7 = _____

Step 2 Count: _____

Step 3 4 × 35 = _____ in²

5. 3 equal triangles each have b = 20 ft and h = 13 ft. Find the total area.

Step 1 ½ × 20 × 13 = _____

Step 2 Count: _____

Step 3 3 × 130 = _____ ft²

YOUR TURN

use the steps on your own

6. Find the total area.

a. 4 triangles, b = 14, h = 9 _____

b. 3 triangles, b = 12, h = 25 _____

c. 4 triangles, b = 26, h = 15 _____

d. 6 triangles, b = 10, h = 8 _____

READY CHECK

a problem like the one in today's lesson

7. A square pyramid has base 10 in and slant height 12 in. What is its lateral area?

A 60 in² **B** 240 in² **C** 340 in² **D** 480 in²

CHECK YOURSELF ☐ I can do this on my own ☐ I need a little help ☐ I have a question about #____