Name_____ Date_____ Period_____

LESSON 5-7 · SESSION 2 · PREREQUISITE PRACTICE B · SKILL 1 OF 2

Surface Area of Rectangular Prisms

Builds on Lesson 5-7 Session 1 · 6.G.A.4

TODAY'S LESSON	You will add all the faces of a triangular prism. It is the same plan as a box.
YOU NEED TO	Find a box's surface area: 3 faces, add, then double. **You will use it in Practice Form A, problems 2 and 8.**

STEPS TO FOLLOW

use these same steps on every problem

1. **Find** three faces: l × w, l × h, w × h.
2. **Add** the three face areas.
3. **Double** the sum. Write square units.

WATCH ME

the steps in action

A box is 6 cm by 4 cm by 3 cm. Find its surface area.

Step 1 Faces: 6 × 4 = 24, 6 × 3 = 18, 4 × 3 = 12.

Step 2 24 + 18 + 12 = 54.

Step 3 2 × 54 = 108.

Answer **108 cm²**

TRY IT WITH HELP

fill in each step

1. A box is 5 m by 4 m by 2 m. Find its surface area.

Step 1 Faces: 5 × 4 = _____, 5 × 2 = _____, 4 × 2 = _____

Step 2 20 + 10 + 8 = _____

Step 3 2 × 38 = _____ m²

2. A box is 10 in by 3 in by 2 in. Find its surface area.

Step 1 Faces: 10 × 3 = _____, 10 × 2 = _____, 3 × 2 = _____

Step 2 30 + 20 + 6 = _____

Step 3 2 × 56 = _____ in²

YOUR TURN

use the steps on your own

3. Find the surface area of each box.

a. 3 × 2 × 1 cm _____

b. 4 × 4 × 4 cm _____

c. 8 × 5 × 4 cm _____

d. 6 × 5 × 2 cm _____

Area of Triangles

Builds on Lesson 5-2 Session 1 · 6.G.A.1

TODAY'S LESSON	You will find the triangle ends of a prism, like ½ × 24 × 5.
YOU NEED TO	Find a triangle's area with its height, not a slanted side. **You will use it in Practice Form A, problems 1, 2, and 7.**

STEPS TO FOLLOW

use these same steps on every problem

1. **Pick** the base and the height that meet at a square corner.
2. **Halve** the even number.
3. **Multiply**. Write square units.

WATCH ME

the steps in action

A right triangle has legs 16 cm and 12 cm. Its long side is 20 cm. Find its area.

Step 1 Base 16 and height 12. Skip the 20.

Step 2 Half of 16 is 8.

Step 3 8 × 12 = 96.

Answer **96 cm²**

TRY IT WITH HELP

fill in each step

4. Base 12 ft, height 8 ft, slanted sides 10 ft. Find the area.

Step 1 Base _____ and height _____

Step 2 Half of 12 is _____

Step 3 6 × 8 = _____ ft²

5. Legs 40 m and 9 m, long side 41 m. Find the area.

Step 1 Base _____ and height _____

Step 2 Half of 40 is _____

Step 3 20 × 9 = _____ m²

YOUR TURN

use the steps on your own

6. Find each triangle's area.

a. legs 6 and 8, long side 10 _____

b. legs 12 and 35, long side 37 _____

c. legs 10 and 24, long side 26 _____

d. base 30, height 8, slanted sides 17 _____

READY CHECK

a problem like the one in today's lesson

7. Each triangle end has b = 10 cm and h = 6 cm. What is the area of both ends?

A 30 cm² **B** 60 cm² **C** 120 cm² **D** 16 cm²

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