UNIT 5 · STANDARD 6.G.1

Area of Triangles

Lesson 5-3

Name: Type your name **Date:** Today's date **Class:** Class period

Key Vocabulary Level 2 Standard

Picture first, then the word, then a plain-language meaning. Say each word out loud.

bottom side

If the bottom of a triangle is 10 cm, then b = 10 cm in the formula A = ½ × b × h

Base

Write the definition:

perpendicular to base

A dashed vertical line from the top point straight down to the base at a 90° angle — like dropping a plumb line

Height

Write the definition:

Area = 15 square units

A triangle with b = 8 and h = 6 has area = ½ × 8 × 6 = 24 sq units — exactly half the rectangle around it

Area

Write the definition:

base × height ÷ 2

The corner of a book or a door frame — the edges meet at exactly 90°, shown by a small square symbol

Perpendicular

Write the definition:

two shapes joined

A house shape = a rectangle (the walls) + a triangle (the roof); total area = rectangle area + triangle area

Composite figure

Write the definition:

3x + 5

no equal sign

A = ½ × b × h means Area equals one-half times base times height; for b = 12 and h = 8, A = 48

Formula

Write the definition:

Guided Notes Level 2 Standard

🎯 **WHAT WE'RE LEARNING TODAY**

I can find the area of a triangle using the formula A = ½ × base × height.

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

📚 **WORD BANK — FILL EACH BLANK WITH THE BEST WORD**

Base | Height | Area | Perpendicular | Composite figure | Formula

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

1. The side of a triangle used as the bottom for measuring area is the _____.

2. The perpendicular distance from the base to the opposite vertex is the _____.

3. The amount of flat space inside a triangle is its _____.

4. Two lines that meet at a 90° angle are _____.

5. A shape made of two or more basic shapes combined is a _____.

6. A math rule written with symbols, like A = ½ × b × h, is a _____.

🧱 Watch & Try — Worked Examples

See the notes in action: watch one worked all the way through, then try the next with the same steps.

👀 I do — watch

Follow each step as your teacher solves it.

Problem: What is the area of a triangle with base 10 cm and height 6 cm?

A. 30 sq cm

B. 60 sq cm

C. 16 sq cm

D. 30 cm

Step 1 A = ½ × b × h = ½ × 10 × 6 = 30 square centimeters.

✅ **Answer:** A. 30 sq cm

🤝 We do — together

Solve this one with your class using the same steps.

Problem: A triangle has an area of 24 sq ft and a base of 8 ft. What is the height?

A. 6 ft

B. 3 ft

C. 16 ft

D. 12 ft

Step 1 _____

Step 2 _____

Answer: _____

✏️ **You do — your turn**

Now try one on your own. Show every step.

Problem: Why do we divide by 2 when finding the area of a triangle?

A. A triangle is exactly half of a rectangle with the same base and height

B. Triangles have 2 equal sides

C. The base is always twice the height

D. We always divide area formulas by 2

Show your work:

Try It

Solve on your own. Check the answer key when you are done.

1. A triangular roof panel on the blueprint has a base of 7 ft and a height of 4 ft. What is its area?

A. 14 sq ft

B. 28 sq ft

C. 11 sq ft

D. 22 sq ft

Show your work:

2. On the blueprint, a triangular garden bed has a base of 11 ft and a height of 6 ft. What is its area?

A. 33 sq ft

B. 66 sq ft

C. 17 sq ft

D. 30 sq ft

Show your work:

Stretch Your Thinking

Level 2 enrichment

Challenge task — explain your reasoning in full sentences.

A rectangle is 12 ft by 8 ft. A diagonal line cuts it into two triangles. What is the area of each triangle? Explain how the triangle area formula relates to the rectangle area formula.

Sentence starter: The rectangle's area is ____ because ____. Each triangle's area is ____ because a diagonal splits a rectangle into ____ equal triangles, so A = ½ × ____ × ____ = ____.

Show your work:

Reflect — Exit Ticket

A triangle has a base of 11 inches and a height of 8 inches. What is its area?

A. 44 sq in

B. 88 sq in

C. 19 sq in

D. 44 in

Your answer: