Name_____ Date_____ Period_____

LESSON 5-2 · SESSION 1 · PRACTICE · FORM B

Area of Triangles

Learning target – I can find the area of a triangle using one half the base times the height. · 6.G.A.1

REMEMBER

- Two matching triangles make a parallelogram, so a triangle is **half**: **A = ½ × b × h**.
- The **height** makes a square corner with the base.
- In a **right triangle**, the two legs at the square corner are the base and height.

WORKED EXAMPLE

A triangle has a base of 14 cm and a height of 9 cm. Find its area.

Step 1 14 × 9 = 126

Step 2 126 is the parallelogram made by two triangles.

Step 3 126 ÷ 2 = 63

Answer **63 cm²**

WORDS **right triangle** *(triángulo rectángulo)* · **height** *(altura)* · **congruent** *(congruente)*

PRACTICE

show your work · label units

1. Find the area of each triangle with base *b* and height *h*.

a. b = 16 cm, h = 5 cm ____

b. b = 9 in, h = 4 in ____

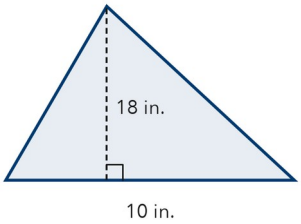
c. b = 22 ft, h = 6 ft ____

d. b = 13 m, h = 8 m ____

2. **Pennant Flag.** Two copies of this flag fit together to make a parallelogram.

a. Area of the parallelogram _____ in²

b. Area of one flag _____ in²



3. **Cut Sandwich.** A sandwich is cut on a diagonal into two equal triangles. Each has a base of 12 cm and a height of 9 cm.

a. Area of one triangle _____ cm²

b. Whole sandwich _____ cm²

4. **Right-Triangle Sail.** A sail is a right triangle. Its two legs are 8 ft and 15 ft. Find its area.

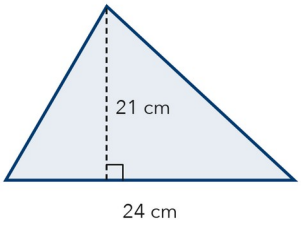
Hint *The legs meet at a square corner.*

Answer_____ ft²

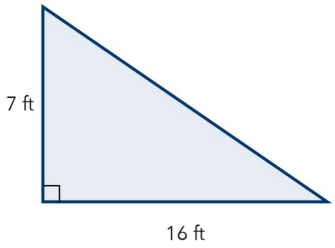
5. **Warning Sign.** Find the area of the sign.

Hint *Multiply, then take half.*

Answer_____ cm²



6. Recess Wedge. A wedge of the recess yard is a right triangle. Find its area.



Hint *In a right triangle, the legs are the base and height.*

Answer_____ ft²

7. Two Banners. Banner P is a triangle with base 16 m and height 9 m. Banner Q has base 12 m and height 14 m. Find each area. Which covers more space?

Show your work.

Areas, which_____

8. Garden Plot. A triangular garden has a base of 20 ft and a height of 18 ft. One bag of mulch covers 30 ft² and costs $5.

a. Find the area. _____ ft²

b. How many bags are needed? _____

c. Find the total cost. What happens to the cost if the base is doubled? _____

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Marta's Work. A triangle has a base of 20 m and a height of 7 m. Marta wrote: "A = 20 × 7 = 140 m²." Explain her mistake. Then find the area.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. A triangle with base 16 m and height 5 m has area –

A 21 m² **B** 40 m² **C** 80 m² **D** 160 m²

11. The height of a triangle must meet the base at –

A a square corner (right angle) **B** the longest side

C the middle of the base **D** any angle

SELF-CHECK CODE

find your answer · copy its letter into that problem's box · spell a math word

504	$30	112	90	56	120	54	180	60	252
Q	T	Z	P	U	X	R	C	O	D

#2b	#3a	#4	#5	#6	#8a	#8c

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