Name_____ Date_____ Period_____

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

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 = 12 cm, h = 5 cm ____

b. b = 14 in, h = 3 in ____

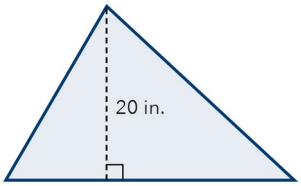
c. b = 20 ft, h = 7 ft ____

d. b = 11 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 10 cm and a height of 8 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 6 ft and 11 ft. Find its area.

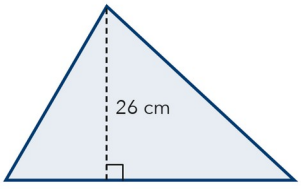
Hint *The legs meet at a square corner.*

Answer_____ ft²

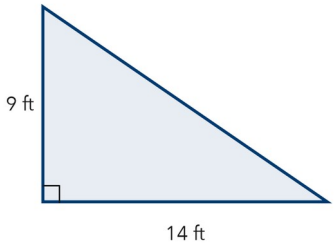
5. **Warning Sign.** Find the area of the sign.

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 18 m and height 10 m. Banner Q has base 12 m and height 13 m. Find each area. Which covers more space?

Show your work.

Areas, which_____

8. Garden Plot. A triangular garden has a base of 24 ft and a height of 15 ft. One bag of mulch covers 30 ft² and costs $6.

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. Andre's Work. A triangle has a base of 22 cm and a height of 10 cm. Andre wrote: "A = 22 × 10 = 220 cm²." Explain his mistake. Then find the area.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. A triangle with base 14 in. and height 6 in. has area –

A 20 in² **B** 42 in² **C** 84 in² **D** 168 in²

11. The area of a triangle is what fraction of a rectangle with the same base and height?

A 1/4 **B** 1/3 **C** 1/2 **D** 2

SELF-CHECK CODE

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

120 H	33 L	126 Z	780 Q	66 X	63 I	180 N	390 V	40 A	$36 G

#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 #___