Name_____ Date_____ Period_____

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

Missing Measures in Triangles

Learning target – I can find a missing base or height of a triangle when I know its area. · 6.G.A.1

REMEMBER

- Work backward from **A = ½ × b × h**.
- **Double the area** to undo the half, then **divide** by the measure you know.
- Check: ½ × b × h gives the area. A base or height is in cm, not cm².

WORKED EXAMPLE

Area 40 cm², base 10 cm. Find the height.

Step 1 40 = ½ × 10 × *h*

Step 2 2 × 40 = 80

Step 3 80 ÷ 10 = 8

Answer **8 cm**

WORDS **area** *(área)* · **formula** *(fórmula)* · **inverse operation** *(operación inversa)*

PRACTICE

show your work · label units

1. Find the missing measure of each triangle.

a. A = 18 cm², h = 4 cm; b = ___

b. A = 36 in², b = 9 in; h = ___

c. A = 50 m², h = 10 m; b = ___

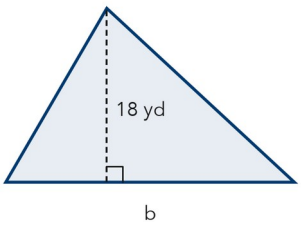
d. A = 63 ft², b = 14 ft; h = ___

2. **Park Lot.** A triangular lot covers 126 yd². Its height is 18 yd.

Hint *Double the area first.*

a. Fill in the formula: 126 = ½ × ___ × ___

b. Find the base *b*. _____ yd



3. **Quilt Piece.** A triangular quilt piece has an area of 54 in² and a base of 12 in. Find the height.

Answer_____ in.

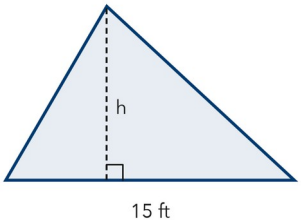
4. **Roof Gable.** A triangular gable covers 117 ft². Its height is 9 ft. Find the base.

Answer_____ ft

5. **Awning Panel.** The awning panel covers 60 ft². Find the height *h*.

Hint *Undo the ½ by doubling 60.*

Answer_____ ft



6. Sign Claim. A triangular sign has an area of 84 cm² and a height of 7 cm. Rosa says the base must be 28 cm. Is she right? Use the formula.

Hint *Put Rosa's base into ½ × b × h and check.*

Show your work.

Base_____

7. Sandbox Wedge. A triangular wedge of a sandbox covers 45 m². Its height is 5 m. Find the base.

Show your work.

Answer_____ m

8. Two Signs. Sign A is a triangle with area 120 ft² and base 16 ft. Sign B is a triangle with area 120 ft² and height 12 ft.

a. Find the height of Sign A. _____ ft

b. Find the base of Sign B. _____ ft

c. Both signs have the same area. How can their shapes be different?

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Bennett's Work. A triangle has an area of 66 ft² and a base of 11 ft. Bennett wrote: "66 ÷ 11 = 6, so the height is 6 ft." Explain his mistake. Then find the height.

TEST PRACTICE

choose the best answer

10. A triangle has area 60 cm² and base 10 cm. Its height is –

A 6 cm **B** 12 cm **C** 50 cm **D** 600 cm

11. A triangle has area 45 in² and height 9 in. Its base is –

A 5 in. **B** 36 in. **C** 10 in. **D** 405 in.

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

13	14	26	20	7	9	24	18	4	8
Z	M	S	G	Q	I	I	N	X	S

#2b	#3	#4	#5	#6	#7	#8b

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