Name_____ Date_____ Period_____

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

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 $40 = ½ \times 10 \times h$

Step 2 $2 \times 40 = 80$

Step 3 $80 \div 10 = 8$

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 = 24 cm², h = 6 cm; b = ___

b. A = 40 in², b = 10 in; h = ___

c. A = 35 m², h = 7 m; b = ___

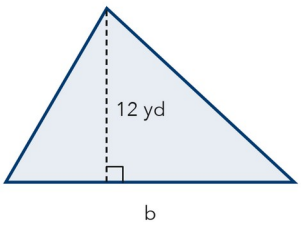
d. A = 27 ft², b = 9 ft; h = ___

2. **Park Lot.** A triangular lot covers 132 yd². Its height is 12 yd.

Hint *Double the area first.*

a. Fill in the formula: 132 = ½ × ___ × ___

b. Find the base *b*. _____ yd



3. **Quilt Piece.** A triangular quilt piece has an area of 42 in² and a base of 7 in. Find the height.

Answer_____ in.

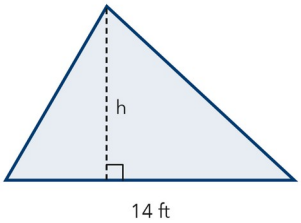
4. **Roof Gable.** A triangular gable covers 135 ft². Its height is 15 ft. Find the base.

Answer_____ ft

5. **Awning Panel.** The awning panel covers 70 ft². Find the height *h*.

Hint *Undo the ½ by doubling 70.*

Answer_____ ft



6. Banner Claim. A triangular banner has an area of 90 ft² and a height of 9 ft. Deshawn says the base must be 10 ft. Is he right? Use the formula.

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

Show your work.

Base_____

7. Sandbox Wedge. A triangular wedge of a sandbox covers 52 m². Its height is 8 m. Find the base.

Show your work.

Answer_____ m

8. Two Signs. Sign A is a triangle with area 150 ft² and base 20 ft. Sign B is a triangle with area 150 ft² and height 10 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. Ravi's Work. A triangle has an area of 90 cm² and a base of 15 cm. Ravi wrote: "90 ÷ 15 = 6, so the height is 6 cm." Explain his mistake. Then find the height.

TEST PRACTICE

choose the best answer

10. A triangle has area 48 m² and base 12 m. Its height is –

A 4 m **B** 8 m **C** 36 m **D** 576 m

11. A triangle has area 100 in² and height 20 in. Its base is –

A 5 in. **B** 80 in. **C** 10 in. **D** 2,000 in.

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

30	18	10	9	20	5	22	13	11	12
E	V	E	Z	R	X	I	S	Q	N

#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 #___