

NAME: _____

1. The length of the base of a right triangle is 4 inches and the height is 17 inches. Find the area of the right triangle.
2. The state of South Carolina is shaped somewhat like a triangle. It is 273 miles across the state and 219 miles from top to bottom. Estimate the area of South Carolina.
3. The function $A = 0.5bh$ describes the area of a triangle with base b and height h . Use any problem solving strategy to find the base and height of a triangle if the base and height are equal and the area is 200 cm^2 .

4. Compare the quantities in Column A and Column B.

Column A

the length of a side of a square
with area 8 cm^2

Column B

the length of the base of a triangle
with area 8 cm^2 whose base and
height are equal lengths

- [A] The quantity in Column A is greater. [B] The quantity in Column B is greater.
[C] The quantities are equal.
[D] The relationship cannot be determined from the information given.

5. Use any problem solving strategy to solve the following problem. A triangular garden has a base that is 4 feet shorter than the height. Write a polynomial to describe the area of the garden.
6. Points $A(3, -2)$, $B(1, -2)$, and $C(1, 2)$ are the vertices of a right triangle. Using the formula $A = \frac{1}{2}bh$, where b is the base and h is the height of the triangle, find the area of $\triangle ABC$.
[A] 4 [B] 8 [C] 64 [D] 2 [E] 16
7. In a triangle, the base and corresponding height are in the ratio 2 : 5. The area is 20 m^2 . Find the base and the corresponding height.

[1] 34 in.²

[2] 30,000 mi²

[3] 20 cm

[4] B

[5] $0.5x^2 - 2x$

[6] A

[7] base: 4 m; height: 10 m