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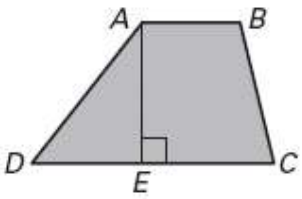
Perimeter, Circumference, and Area Assignment Part 5

Use the figure at the right.



1. Identify the height of trapezoid *ABCD*.
2. Identify the bases of trapezoid *ABCD*.
3. State the formula for the area of a trapezoid. Use h for the height, and b_1 and b_2 for the bases.

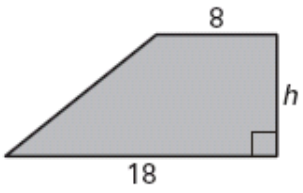
Match the trapezoid with the equation used to find the height.

A. $A = \frac{1}{2}(h)(18 + 24)$

B. $A = \frac{1}{2}(h)(8 + 18)$

C. $A = \frac{1}{2}(h)(12 + 24)$

4.



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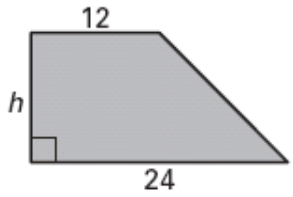

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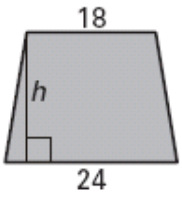
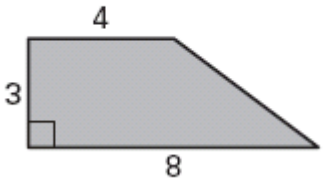
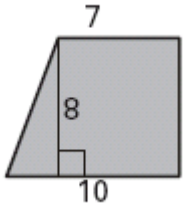


Find the area of the trapezoid.

7.



8.



9. A trapezoid has an area of 60 square units. The lengths of the bases are 6 units and 9 units. Find the height.

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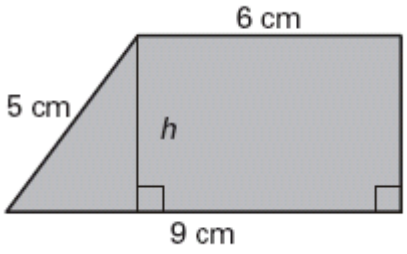
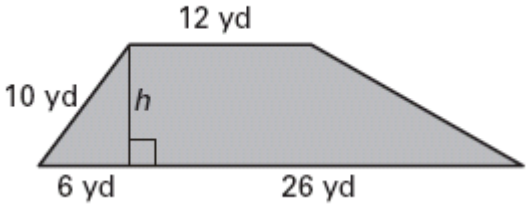
10. A trapezoid has an area of 135 square units. The height is 10 units and the length of one of the bases is 12 units. Find the length of the other base.

Find the height using the Pythagorean Theorem. Then find the area of the trapezoid.

11.



12.



13. The front of the computer speaker shown at the right is a trapezoid. If the area of the front of the speaker is 15 square inches, what is the height of the speaker?

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ANSWERS

1. h = AE

2. b = DC, AB

3. $\frac{1}{2}$ (AE)(AB + DC)

4. B

5. C

6. A

7. A = 18$unit^2$

8. A = 68$unit^2$

9. h = 8

10. b_2

11. B = 4cm

12. B = 8yd

13. h = 4in