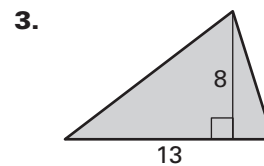
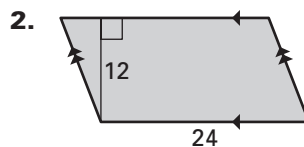
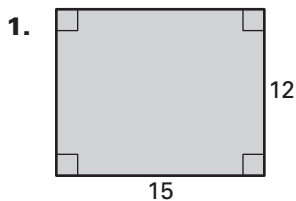


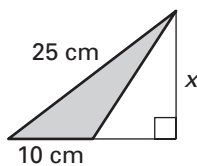
LESSON 11.1 Practice C
For use with pages 720–726

Find the area of the polygon.

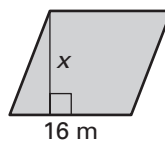


Find the value of x .

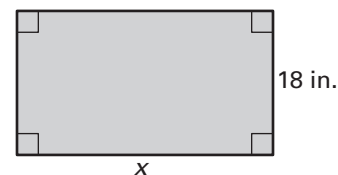
4. Area = 70 cm^2



5. Area = 104 m^2



6. Area = 576 in.^2



The lengths of the hypotenuse and one leg of a right triangle are given. Find the perimeter and area of the triangle.

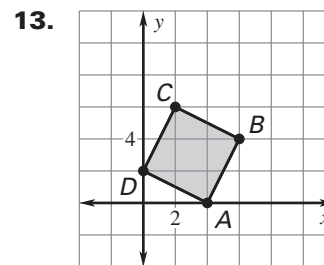
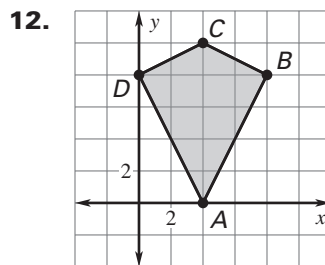
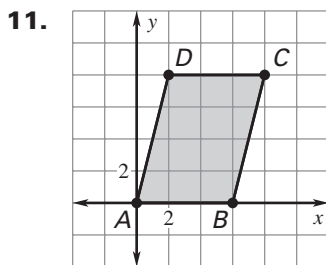
7. Hypotenuse: 17 ft; leg: 8 ft

8. Hypotenuse: 53 in.; leg: 45 in.

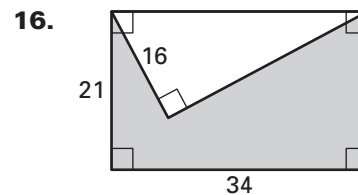
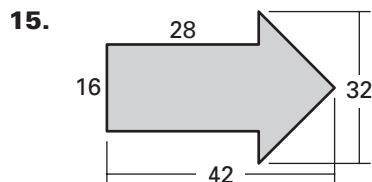
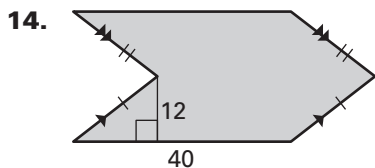
9. Hypotenuse: 65 cm; leg: 56 cm

10. Hypotenuse: 85 mm; leg: 36 mm

Find the area of the quadrilateral.

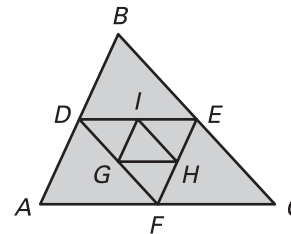


Find the area of the shaded polygon.



LESSON
11.1**Practice C** *continued*
For use with pages 720–726

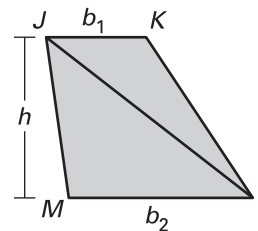
- 17. Algebra** The area of a triangle is 225 square units. The base of the triangle is twice the height. Find the base and the height.
- 18. Algebra** The area of a parallelogram is 216 square centimeters. The height of the parallelogram is two thirds its base. Find the base and the height.
- 19. Algebra** The area of a square is 256 square units. Find the side length and perimeter of the square.
- 20. Algebra** The area of a rectangle is 84 square inches. The length of the rectangle is 2 inches longer than twice the width. Find the width and the perimeter of the rectangle.
- 21. Trigonometry** In $\square ABCD$, base \overline{AD} is 25 units and \overline{AB} is 12 units. Find the height and area of $\square ABCD$ if $m\angle A$ is 30° .
- 22. Trigonometry** In $\square EFGH$, base \overline{EH} is 15 units and \overline{EF} is $6\sqrt{2}$ units. Find the height and area of $\square EFGH$ if $m\angle E$ is 45° .
- 23.** In the figure at the right, $D, E, F, G, H,$ and I are midpoints of segments. The area of $\triangle GHI$ is 12 square units. Find the area of $\triangle ABC$.



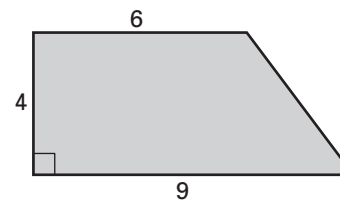
- 24. Area of a Trapezoid** Use the figure at the right to write a plan for a proof of the area of a trapezoid.

GIVEN: $JKLM$ is a trapezoid with bases \overline{JK} and \overline{ML} .

PROVE: The area of $JKLM$ is $\frac{1}{2}h(b_1 + b_2)$.



- 25. Justify** Use the trapezoid at the right to justify your plan in Exercise 24.



- 26. Heron's Formula** Another way to find the area of a triangle is to use Heron's Formula. The formula is $A = \sqrt{s(s-a)(s-b)(s-c)}$ where A is the area of the triangle, $a, b,$ and c are side lengths, and s is one half the perimeter of the triangle. Use the triangle at the right to justify Heron's Formula.

