Find the area of the polygon.

1. \(16 \times 6 = 96\) square units
2. \(11 \times 11 = 121\) square units
3. \(9 \times 14 = 126\) square units
4. \(8 \times 12 = 96\) square units
5. \(15 \times 19 = 285\) square units
6. \(7 \times 13 = 91\) square units

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

7. Hypotenuse: 26 cm; leg: 24 cm
   - Hypotenuse: 26 cm; Perimeter: 76 cm; Area: 288 cm²
8. Hypotenuse: 50 mm; leg: 14 mm
   - Hypotenuse: 50 mm; Perimeter: 86 mm; Area: 420 mm²
9. Hypotenuse: 37 ft; leg: 12 ft
   - Hypotenuse: 37 ft; Perimeter: 62 ft; Area: 222 ft²
    - Hypotenuse: 85 in.; Perimeter: 247 in.; Area: 1930 in²

Find the value of \(x\).

11. \(A = 153\) ft²
    - \(x = \frac{17 \times 15}{2} = 127.5\) ft
12. \(A = 528\) cm²
    - \(x = \frac{33 \times 16}{2} = 264\) cm
13. \(A = 399\) in²
    - \(x = \frac{21 \times 13}{2} = 154.5\) in

Find the area of the shaded polygon.

14. \((10 \times 3) + (10 \times 6) = 102\) square meters
15. \((16 \times 9) + (16 \times 7) = 224\) square feet
16. \((11 \times 12) + (22 \times 8) = 284\) square inches
17. \((26 \times 10) + (14 \times 26) = 650\) square cm
18. \((38 \times 15) + (8 \times 38) = 764\) square mm
19. \((24 \times 23) + (32 \times 23) + (18 \times 23) = 1184\) square feet
Graph the points and connect them to form a polygon. Find the area of the polygon.

20. \( A(2, 2), B(3, 6), C(5, 6), D(4, 2) \)

21. \( P(-4, -4), Q(-1, -1), R(5, -4) \)

Find the height and area of the polygon.

22. [Diagram of a parallelogram with dimensions 12 in. and 20 in.]

23. [Diagram of a trapezoid with dimensions 11 m, 17 m, and 60°]

24. **Envelopes** You have an envelope that is 9.5 inches by 4.2 inches and has a triangular flap with a height of 2.4 inches. What is the area of the envelope shown in the diagram?

25. **Floor Tile** You have a piece of floor tile in the shape of a parallelogram that has a base of 6 feet and a height of 2.5 feet. You cut a triangular piece of tile with a base of 2 feet to fit next to the other piece, as shown. Find the total area of the tile in square feet and square inches.

26. **Painting** A painter is painting the back of your garage, which has the measurements shown. The painter can paint 200 square feet per hour and charges $25 per hour. How much will you have to pay if the painter rounds the time spent painting to the nearest half hour?