Areas of Quadrilaterals and Triangles

By David Pleacher

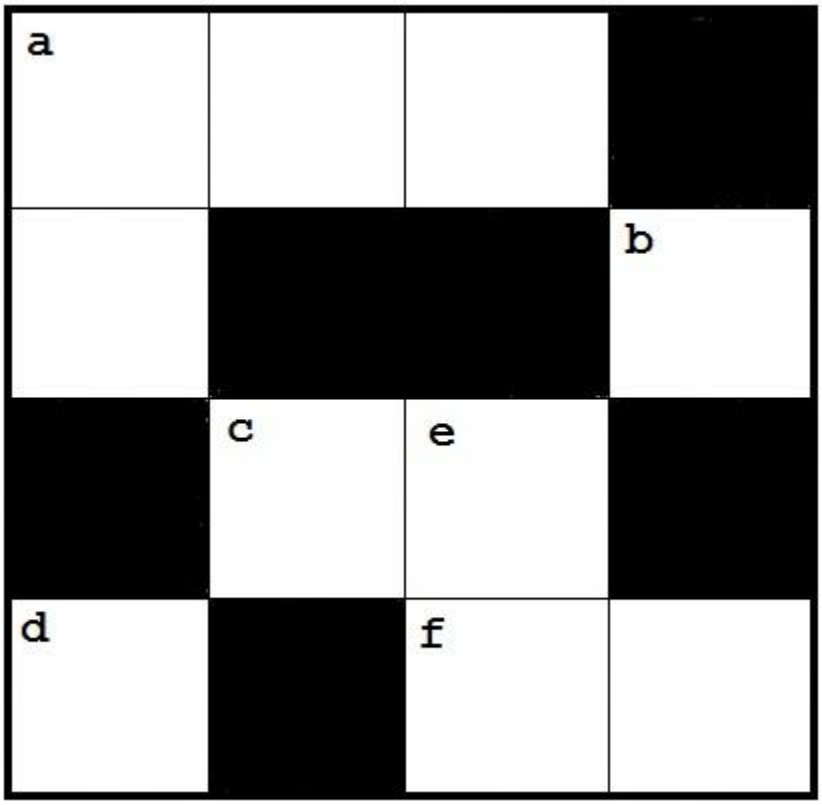
Fill in the following area formulas:

1. Area of Square = _____
2. Area of Rectangle = _____
3. Area of Triangle = _____
4. Area of Trapezoid = _____
5. Area of Parallelogram = _____
6. Area of Rhombus = $b\,h$ where b = base and h = altitude

   Area of Rhombus = $\frac{1}{2}\,d_1\,d_2$ where d_1 and d_2 are diagonals

---

Cross Number Puzzle



Across

a. The diagonals of a rhombus are 15 cm and 20 cm, what is its area?

b. If the area of a rhombus is 250 in^2 and an altitude is 50 in, what is the length of each side?

c. Determine the area of a triangle whose base is 13 m and altitude is 8 m.

d. Determine the area of a parallelogram with base $\sqrt{6}$ ft and altitude $\sqrt{\frac{8}{3}}$ ft.

f. Determine the area of a square whose side is $4\sqrt{6}$ inches.

Down

a. In parallelogram ABCD, AB = $6\sqrt{3}$ cm, AD = $2\sqrt{3}$ cm, and $m\angle A = 30°$. Determine the area of parallelogram ABCD.

b. Determine the area of the rectangle whose dimensions are $\sqrt{200}$ yd by $\sqrt{\frac{1}{8}}$ yd.

d. The diagonals of a rhombus are $\sqrt{32}$ in and $\frac{2}{\sqrt{2}}$ in. Determine its area.

e. The area of a rhombus is 348 square inches and one diagonal has length equal to 24 inches. Determine the length of the other diagonal.