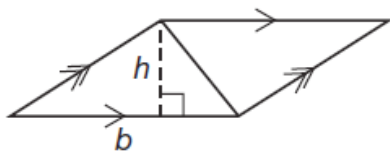
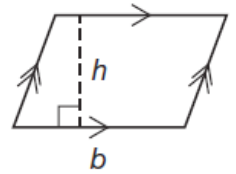


Geometry Lesson 22

Objective: TSW find the areas of different quadrilaterals.



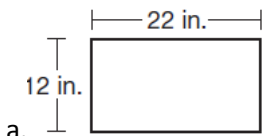
Area of a Parallelogram - To find the area of a parallelogram (A), use this formula, where b is the length of the base, and h is the height.



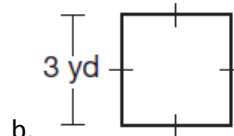
Since rectangles, _____, and squares are all types of parallelograms, the areas of these shapes can also be found using this formula.

Example 1 Finding Areas of Parallelograms

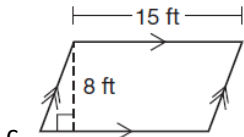
Find the area of each parallelogram.



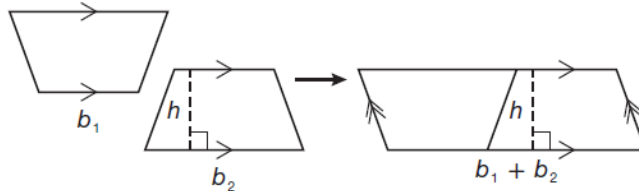
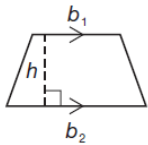
SOLUTION



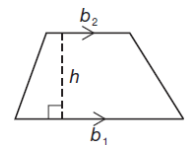
SOLUTION



SOLUTION

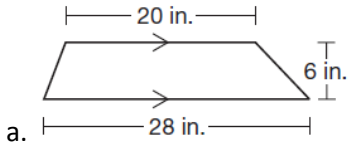


Area of a Trapezoid - To find the area of a trapezoid (A), use the following formula, where b_1 is the length of one base, b_2 is the length of the other base of the trapezoid, and h is the trapezoid's height.

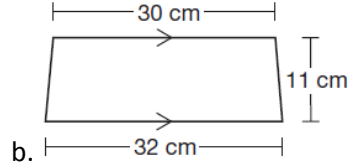


Example 2 Finding Areas of Trapezoids

Find the area of each trapezoid.

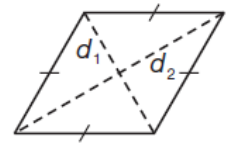


SOLUTION



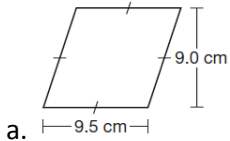
SOLUTION

Area of a _____ - To find the area of a rhombus (A), use the following formula, where d_1 is the length of one diagonal, and d_2 is the length of the other diagonal of the rhombus.

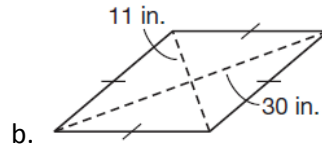


Example 3 Finding Areas of Rhombuses

Find the area of each rhombus.



SOLUTION

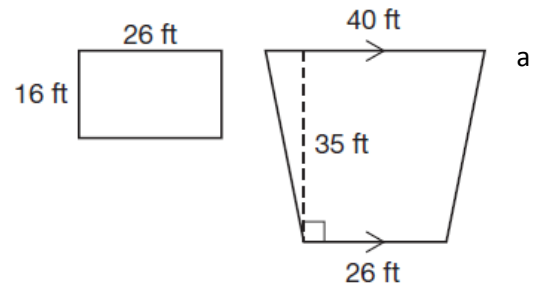


SOLUTION

Example 4 Application: Carpeting

Two areas of a day care need to be carpeted. The play area is shaped like trapezoid, and the supplies area is shaped like a rectangle. Use the diagram of these two areas to determine the total area that needs to be carpeted.

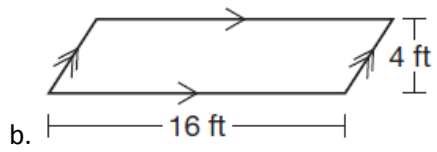
SOLUTION



For the trapezoidal play area,

You Try!!!!

Find the area of each parallelogram.



c. Find the area of a trapezoid with parallel sides measuring 14 centimeters and 21 centimeters and a height of 13 centimeters.

e. Find the area of a rhombus that has diagonal lengths of 8 inches and 11 inches.