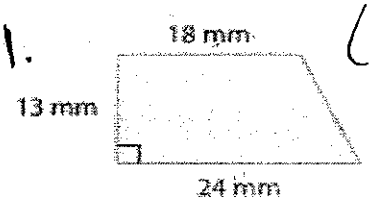
$A = \frac{h(b+b)}{2}$

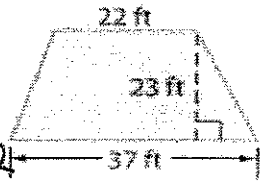
11.2 Warm-Up

Find the area of each trapezoid, rhombus, or kite.

1. 

$\frac{(18+24)13}{2}$

$A = 273\ mm^2$

2. 

$A = \frac{23(22+37)}{2}$

11.2 Areas of Trapezoids, Rhombi, and Kites

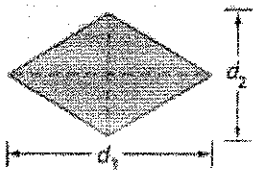
Target: To find Area of Trapezoids using properties of Rhombus & Kites

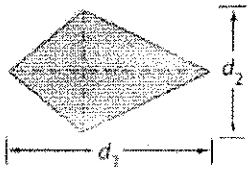
KeyConcept Area of a Rhombus or Kite

Words The area A of a rhombus or kite is one half the product of the lengths of its diagonals, d_1 and d_2.

Symbols

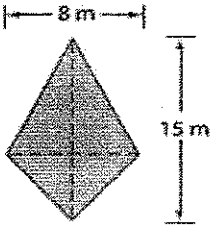
$$A = \frac{d_1 \cdot d_2}{2}$$





Example 3 Area of a Rhombus and a Kite

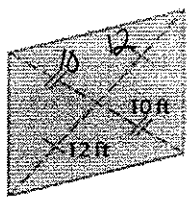
Find the area of each rhombus or kite.

a. 

$A = \frac{8 \cdot 15}{2}$

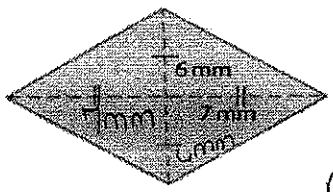
$A = \frac{120}{2}$

$A = 60$

b. 

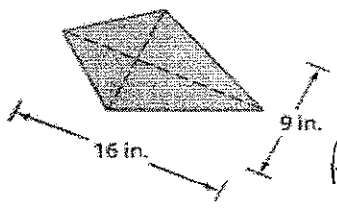
$\frac{20 \cdot 24}{2}$

$A = 240\ ft^2$

3A. 

$\frac{12(14)}{2}$

$A = 84\ mm^2$

3B. 

$\frac{9(16)}{2}$

$A = 72\ in^2$