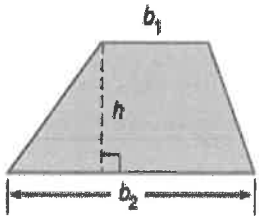
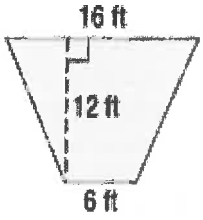
Area of a Trapezoid

$$A = \frac{1}{2}h(b_1 + b_2)$$



1. Find the exact area of each trapezoid:

a.

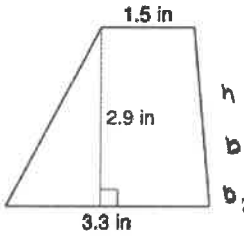


$h = 12$
$b_1 = 16$
$b_2 = 6$

$A = \frac{1}{2}(12)(16 + 6)$

$= 132\ ft^2$

b.

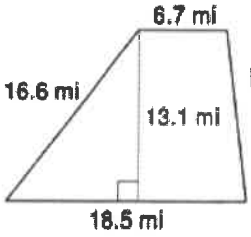


$h = 2.9$
$b_1 = 1.5$
$b_2 = 3.3$

$A = \frac{1}{2}(2.9)(1.5 + 3.3)$

$= 6.96 in^2$

c.



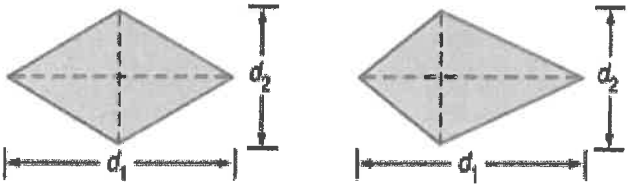
$h = 13.1$
$b_1 = 6.7$
$b_2 = 18.5$

$A = \frac{1}{2}(13.1)(6.7 + 18.5)$

$= 165.06 m.^2$

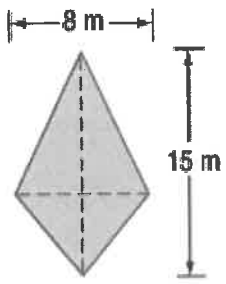
Area of a Rhombus or Kite

$$A = (d_1 * d_2)\ \frac{1}{2}$$



2. Find the exact area of the figures below:

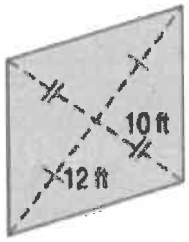
a.



$A = \frac{1}{2}(8)(15)$

$= 60\ m^2$

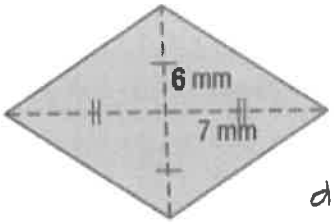
b.



$A = \frac{1}{2}(20)(24)$

$= 240\ ft^2$

c.



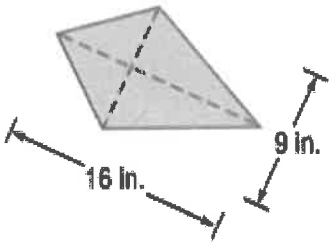
$d_1 = 12$

$d_2 = 14$

$A = \frac{1}{2}(12)(14)$

$= 84\ mm^2$

d.



$A = \frac{1}{2}(16)(9)$

$= 72\ in^2$