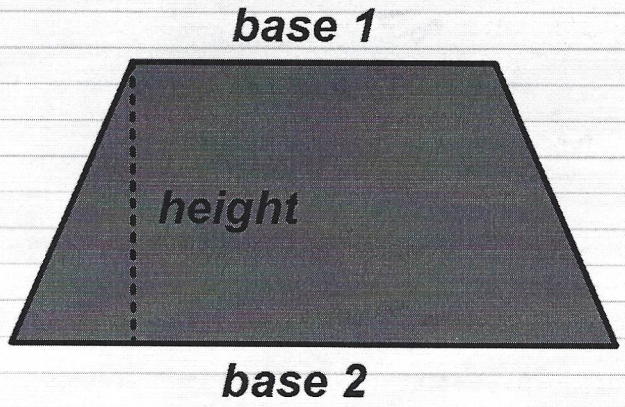
Chapter 4	Area of Polygons
Date	**Lesson 4.3 Area of Trapezoids**
Essential Question	How can you derive a formula for the area of a trapezoid?
Formula	$A = \frac{1}{2}h(b_1 + b_2)$

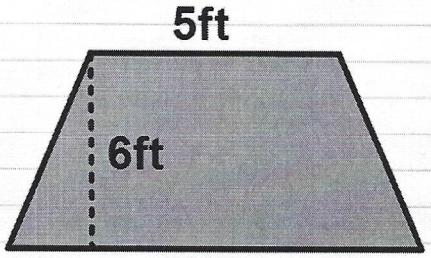


☆ The bases must be parallel.

Composition Book

4.3 Area of Trapezoids

1.



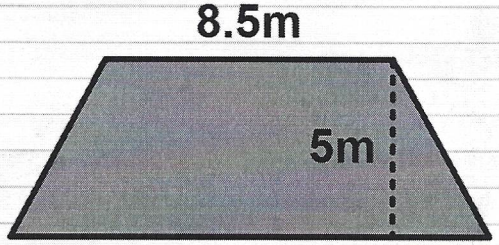
$A = \frac{1}{2}h(b_1 + b_2)$

$\frac{1}{2} \cdot 6(5 + 9)$

$\frac{1}{2} \cdot 6(14)$

$42\ ft.^2$

2.



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

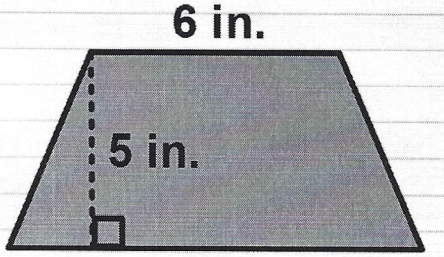
$\frac{1}{2} \cdot 5(8.5 + 11.5)$

$\frac{1}{2} \cdot 5(20)$

$50\ m^2$

Complete numbers 1 and 2 on your notes page.

1.



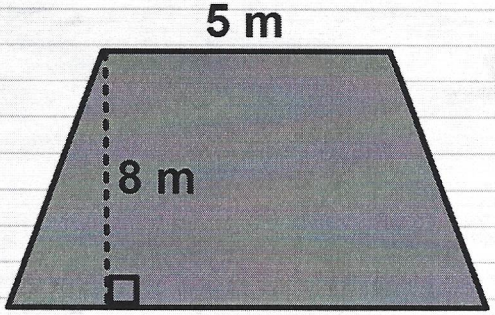
$A = \frac{1}{2}h(b_1 + b_2)$

$\frac{1}{2} \cdot 5(6 + 12)$

$\frac{1}{2} \cdot 5(18)$

45 in.^2

2.



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

$\frac{1}{2} \cdot 8(5 + 11)$

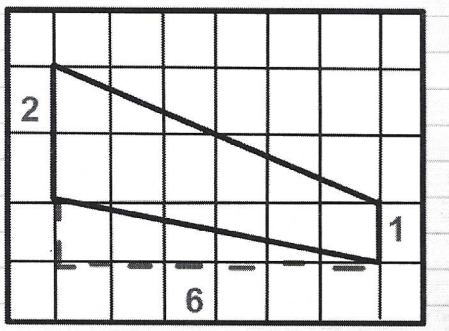
$\frac{1}{2} \cdot 8(16)$

64 m^2

Complete numbers 3 and 4 in your composition book.

What is the area of the trapezoid?

3)



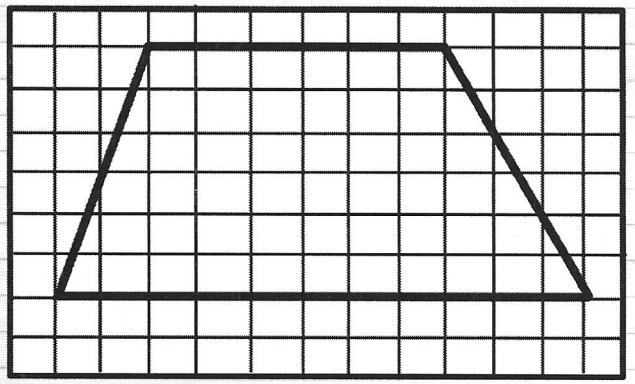
$A = \frac{1}{2}h(b_1 + b_2)$

$\frac{1}{2} \cdot 6(1 + 2)$

$\frac{1}{2} \cdot 6(3)$

$A = 9 \text{ un}^2$

4)



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

$\frac{1}{2} \cdot 6(6 + 11)$

$\frac{1}{2} \cdot 6(17)$

$A = 51 \text{ un}^2$