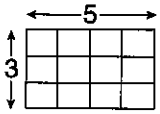
Name _____ Date _____ Class _____

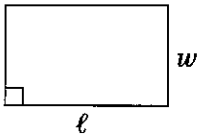
LESSON 9-3

Reteach

Area of Parallelograms

The **area** of a figure is the number of square units inside the figure.





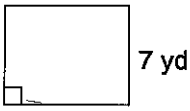
You can count the squares inside the rectangle. There are 15 square units within the rectangle. This is equal to 5 • 3.

To find the area of a rectangle, multiply the length (ℓ) times the width (w).

$A = \ell \bullet w$

Find the area of each rectangle.

1.



yd^2

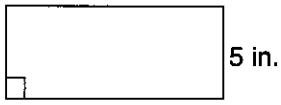
$A = l \bullet w$

$A = \underline{9} \bullet \underline{7}$

$A = \underline{63}$

The area is 63 yd^2.

2.



$A = l \bullet w$

$A = \underline{12} \bullet \underline{5}$

$A = \underline{60}$

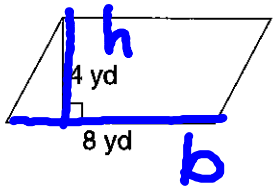
The area is 60 in^2.

To find the area of a parallelogram, multiply the base b times the height h.

$A = b \bullet h$

Find the area of each parallelogram.

3.



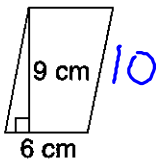
$A = b \bullet h$

$A = \underline{8} \bullet \underline{4}$

$A = \underline{32}$

The area is 32 yd^2.

4.



$A = b \bullet h$

$A = \underline{9} \bullet \underline{6}$

$A = \underline{54}$

The area is 54 cm^2.

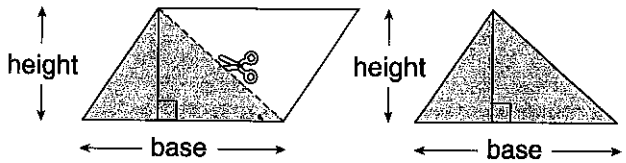
Name _____ Date _____ Class _____

LESSON 9-4

Reteach

Area of Triangles and Trapezoids

The diagram shows how you can cut a parallelogram into two congruent triangles.



Remember that the formula for the area of a parallelogram is $A = b \cdot h$.

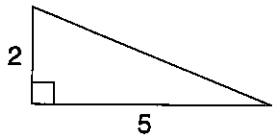
The area of the triangle is $\frac{1}{2}$ the area of the parallelogram.

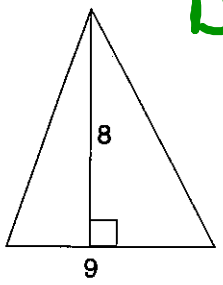
The formula for the area of a triangle is $A = \frac{1}{2} \cdot b \cdot h$.

½ of b·h

b·h÷2

Find the area of each triangle.





units²

1. $A = \frac{1}{2} \cdot b \cdot h$

$A = \frac{1}{2} \cdot \underline{2} \cdot \underline{5}$

$A = \frac{1}{2} \cdot \underline{10}$

$A = \underline{5}$

The area of the triangle is 5 units².

2. $A = \frac{1}{2} \cdot b \cdot h$

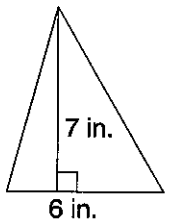
$A = \frac{1}{2} \cdot \underline{8} \cdot \underline{9}$

$A = \frac{1}{2} \cdot \underline{72}$

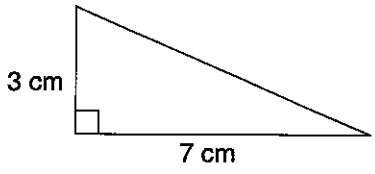
$A = \underline{36}$

The area of the triangle is 36 units².

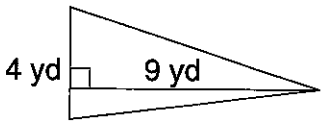
3.



4.



5.



7·6÷2=21 in² 3·7÷2=10.5 cm² 4·9÷2=18 yd²

6. What is the area of a triangle with base 16 m and height 10 m? 16·10÷2=80 m²

7. What is the area of a triangle with base 25 mm and height 50 mm? 625 mm²

25·50÷2

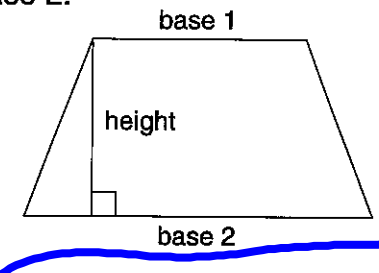
Name _____ Date _____ Class _____

LESSON 9-4

Reteach

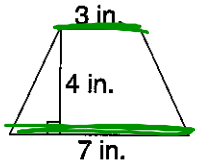
Area of Triangles and Trapezoids (continued)

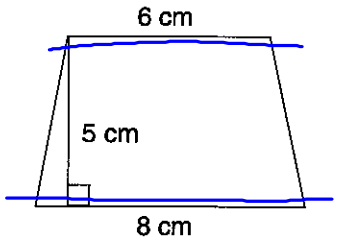
In a trapezoid, the parallel sides are called the *bases.* One base is always longer than the other. The bases are labeled base 1 and base 2.



Area of trapezoid = $\frac{1}{2}h(b_1 + b_2)$

Find the area of each trapezoid.





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

$A = \frac{1}{2} \cdot \underline{4}(\underline{7} + \underline{3})$

$A = \frac{1}{2} \cdot \underline{4}(\underline{10})$

$A = \frac{1}{2} \cdot \underline{40}$

$A = 20$

The area of the trapezoid is 20 in^2.

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

$A = \frac{1}{2} \cdot \underline{5}(\underline{6} + \underline{8})$

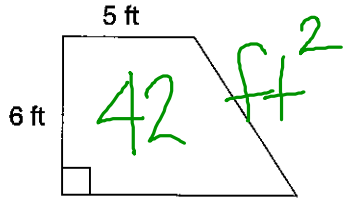
$A = \frac{1}{2} \cdot \underline{5}(\underline{14})$

$A = \frac{1}{2} \cdot \underline{70}$

$A = 35$

The area of the trapezoid is 35 cm^2.

10.

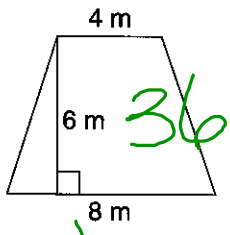


42 ft^2

$(9+5)6 \div 2$

$14 \cdot 6 \div 2 =$

11.

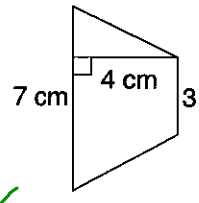


36 m^2

$(8+4)6 \div 2$

$12 \cdot 3$

12.



20 cm^2

$(7+3)4 \div 2$

13. What is the area of a trapezoid with bases 25 yd and 75 yd and height 10 yd?

$(25+75)$

$100 \cdot 10 \div 2$

500 yd^2

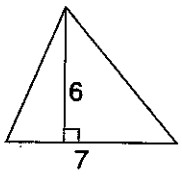
Name _____ Date _____ Class _____

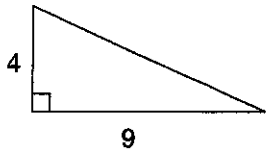
LESSON 9-4

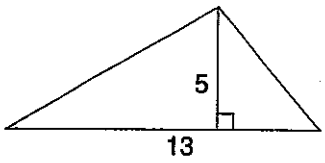
Practice A

Area of Triangles and Trapezoids

Find the area of each triangle.

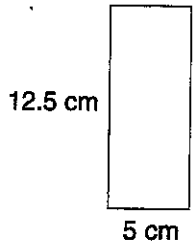
1. 

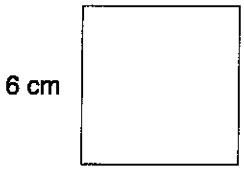
2. 

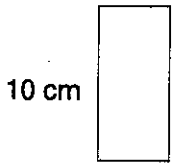
3. 

_____ _____ _____

Find the area of each rectangle.

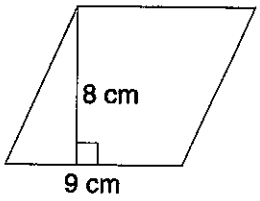
3. 

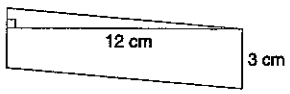
4. 

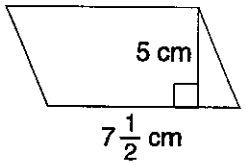
5. 

_____ _____ _____

Find the area of each parallelogram.

6. 

7. 

8. 

_____ _____ _____

9. Michelle wants to carpet her living room. The area of the living room is 192 ft². The length of the living room is 16 ft. What is the width of the living room? _____

10. Mustafa is tiling his bathroom. The section that needs to be tiled is 62 in. by 70 in. How many square inches of tile does he need? _____

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