Math Packet Grade 6 Week 4:

4/20-4/24

Name:_____Period: _____

Monday-Area of Quadrilaterals	Review Notes Pages and FSA reference sheet complete 13-1AB sheet
Tuesday- continued	
Wednesday- Area of Triangles	Review Triangles Notes page, complete 13-2 reteach and D sheet
Thursday – read Go Math p. 383-384 and p. 389-392 and watch math on the spot videos. To access the book- go to class link and click on myhrw.com	Complete practice p. 28
Friday - continued	

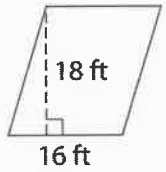
Name _____ Date _____ Class _____

LESSON 13-1

Area of Quadrilaterals

Practice and Problem Solving: A/B

Find the area of each parallelogram.

1. 

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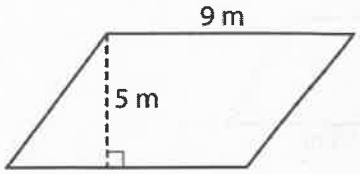
2. 

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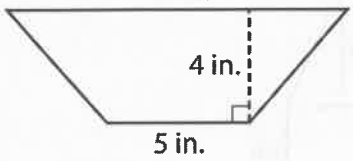
Find the area of each trapezoid.

3. 

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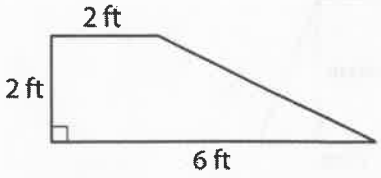
4. 

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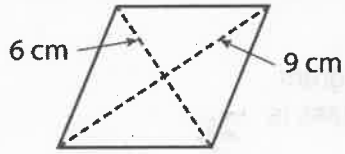
Find the area of each rhombus.

The area of a rhombus is half of the product of its two diagonals.

5. 

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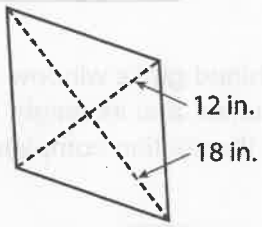
6. 

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Solve.

7. A desktop in the shape of a parallelogram has a base of 30 inches and a height of 40 inches. What is the area of the desktop?

_____

8. A rhombus has one diagonal that is 14 centimeters long and one diagonal that is 12 centimeters long. What is the area of the rhombus?

_____

9. The bases of a trapezoid are 24 feet and 16 feet. The height of the trapezoid is 12 feet. What is the area of the trapezoid?

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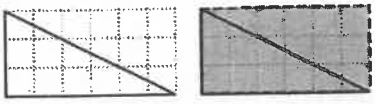
Name _____ Date _____ Class _____

LESSON 13-2

Area of Triangles

Reteach

To find the area of a triangle, first turn your triangle into a rectangle.



Next, find the area of the rectangle. $6 \bullet 3 = 18$ square units

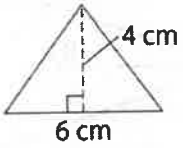
The triangle is half the area of the formed rectangle or $A = \frac{1}{2}bh$, so

divide the product by 2.

$18 \div 2 = 9$ So, the area of the triangle is 9 square units.

Find the area of each triangle.

1.



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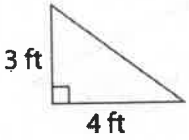

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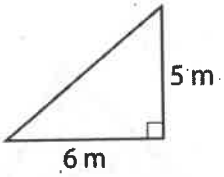

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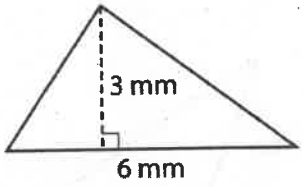

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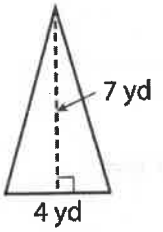

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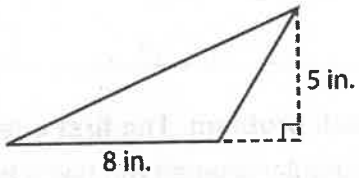

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Name _____ Date _____ Class _____

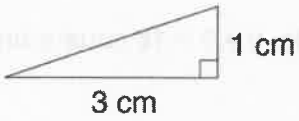
LESSON 13-2

Area of Triangles

Practice and Problem Solving: D

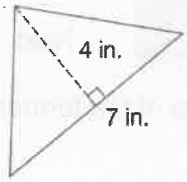
Find the area of each triangle. The first one is done for you.

1.



$A = \frac{1}{2} \cdot 3 \cdot 1 = 1.5 \text{ cm}^2$

2.



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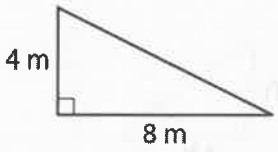

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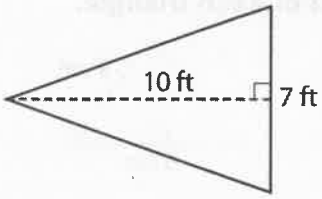

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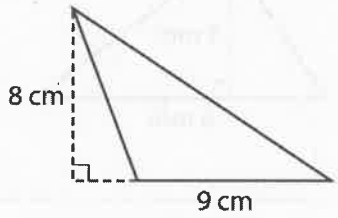

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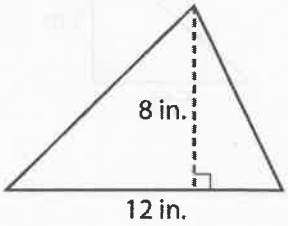


Solve each problem. The first one is done for you.

7. A triangular-shaped rug has a base of 8 feet and a height of 7 feet. What is the area of the rug?

$A = \frac{1}{2} \cdot 8 \cdot 7 = 28 \text{ ft}^2$

8. The sail on a sailboat is in the shape of a triangle that has a base of 12 feet and a height of 14 feet. What is the area of the sail?

9. The front view of a square pyramid is in the shape of a triangle that has a base of 30 yards and a height of 40 yards. What is the area of the front view of the square pyramid?

Name _____ Date _____ Class _____

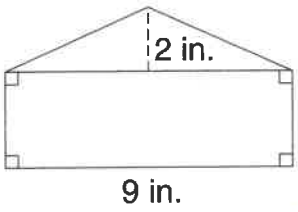
Module 13 (13.4) Area of Composite Figure

LESSON 13-3 **Practice B**

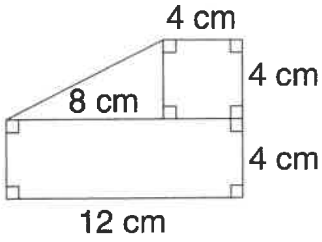
Break into Simpler Parts

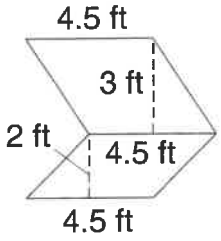
• Find the area of each shape, add them together to get total.

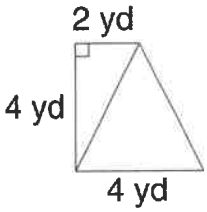
Find the area of each polygon.

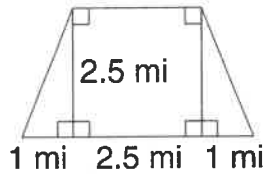
1. 

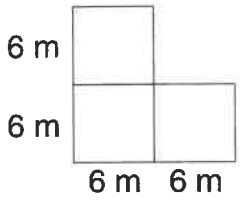
area of △ = ____
+
▭ = ____
=
(grand total)

2. 

3. 

4. 

5. 

6. 

7. Three paintings are shaped like an 8-foot square, a 7-foot by 4-foot rectangle, and a triangle with a 6-foot base and a height of 7 feet. If those paintings are hung together on the outside of a building, how much of the building's wall will they cover altogether?

8. Two diagonals divide a square carpet into 4 congruent triangles. The base of each triangle is 5 feet and the height is 2.5 feet. What is the area of the entire carpet?

Grade 6 FSA Mathematics Reference Sheet

Customary Conversions

1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet
1 mile = 1,760 yards

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 pound = 16 ounces
1 ton = 2,000 pounds

Metric Conversions

1 meter = 100 centimeters
1 meter = 1000 millimeters
1 kilometer = 1000 meters

1 liter = 1000 milliliters

1 gram = 1000 milligrams
1 kilogram = 1000 grams

Time Conversions

1 minute = 60 seconds
1 hour = 60 minutes
1 day = 24 hours
1 year = 365 days
1 year = 52 weeks

Formulas

$A = bh$

$A = lw$

$A = \frac{1}{2}bh$

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

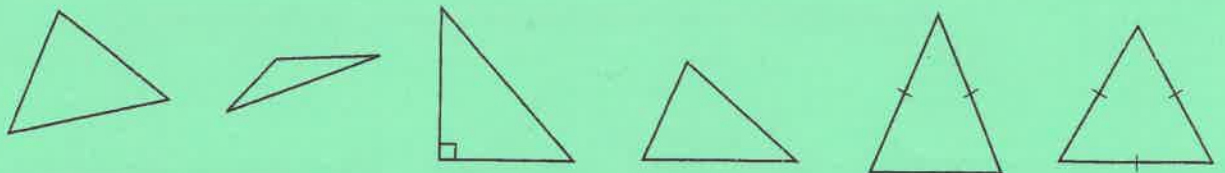
$V = Bh$

$V = lwh$

Triangles

Lesson 7-6

Triangles are often used in construction to provide structural support.



Acute triangle | Obtuse triangle | Right triangle | Scalene triangle | Isosceles triangle | Equilateral triangle

The sum of the measures of the angles in any triangle is 180°.

Quadrilaterals and Polygons

Lessons 7-6, 7-7

Polygons are used in many architectural designs.

Quadrilaterals

Parallelogram
Opposite sides are parallel and congruent. Opposite angles are congruent.

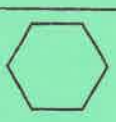
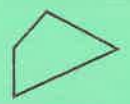
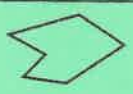
Rectangle
Parallelogram with four right angles

Rhombus
Parallelogram with four congruent sides

Square
Rectangle with four congruent sides

Trapezoid
Quadrilateral with exactly two parallel sides; may have two right angles.

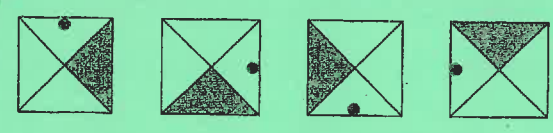
Polygons

Name	Triangle	Quadrilateral	Pentagon	Hexagon	Octagon
Sides and Angles	3	4	5	6	8
Regular					
Not Regular					

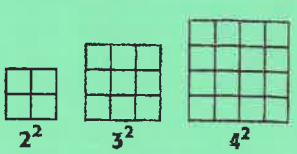
Geometric Patterns

Lesson 7-8

Many designs and works of art involve geometric patterns.



Perfect squares, such as 2^2, 3^2, and 4^2 are also called square numbers because they can be modeled as a square array.



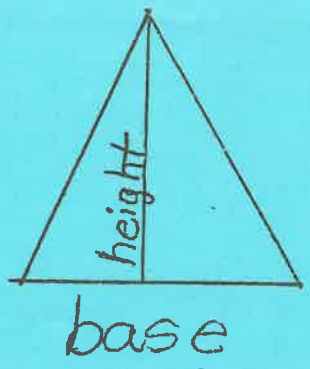
Area formulas:

Square or rectangle: Length **X** width

Parallelogram: Base **X** height

Triangle: ½ X (Base **X** height)

Circle: Pi (3.14) **X** radius **X** radius

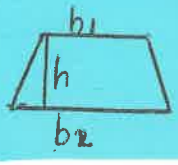


Perimeter:
Add up all the sides (outside) of figure.

Circumference of Circle:
Pi (3.14. **X** Diameter)

Trapezoid:

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



The area of a rhombus is half of the product of its two diagonals.

$$A = \frac{1}{2} d_1 d_2$$

SURFACE AREA & VOLUME

Surface Area (SA): Find the area of each face and add together.

Volume (V) of Prisms: Find the area of the base (B) and multiply that number by the height (h).

Rectangular Prism: $V = \ell \cdot w \cdot h$

Cube: $V = s^3$

Triangular Prism: V = Bh

Cylinder:
$SA = 2\pi r^2 + 2\pi rh$
$V = \pi r^2 h$