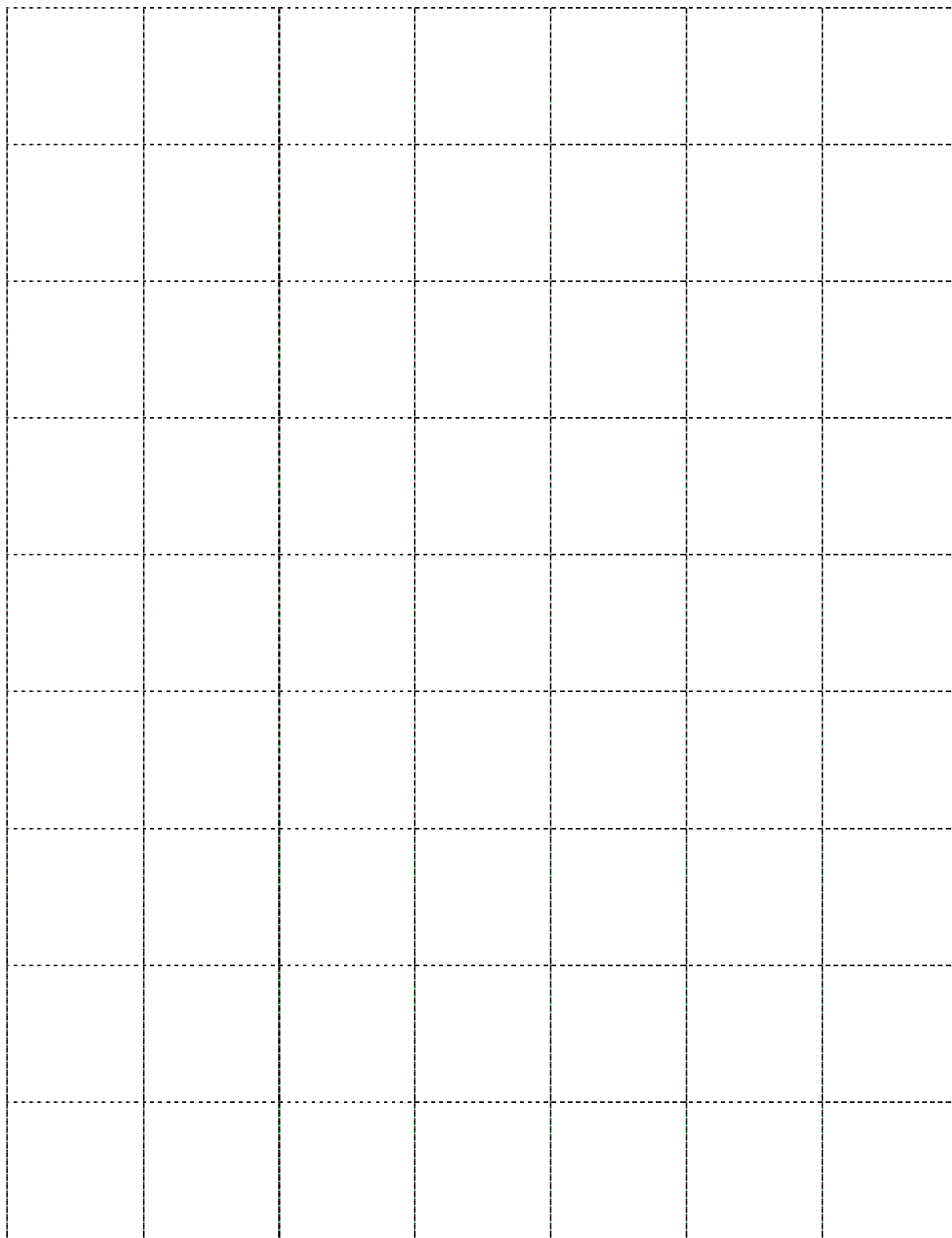
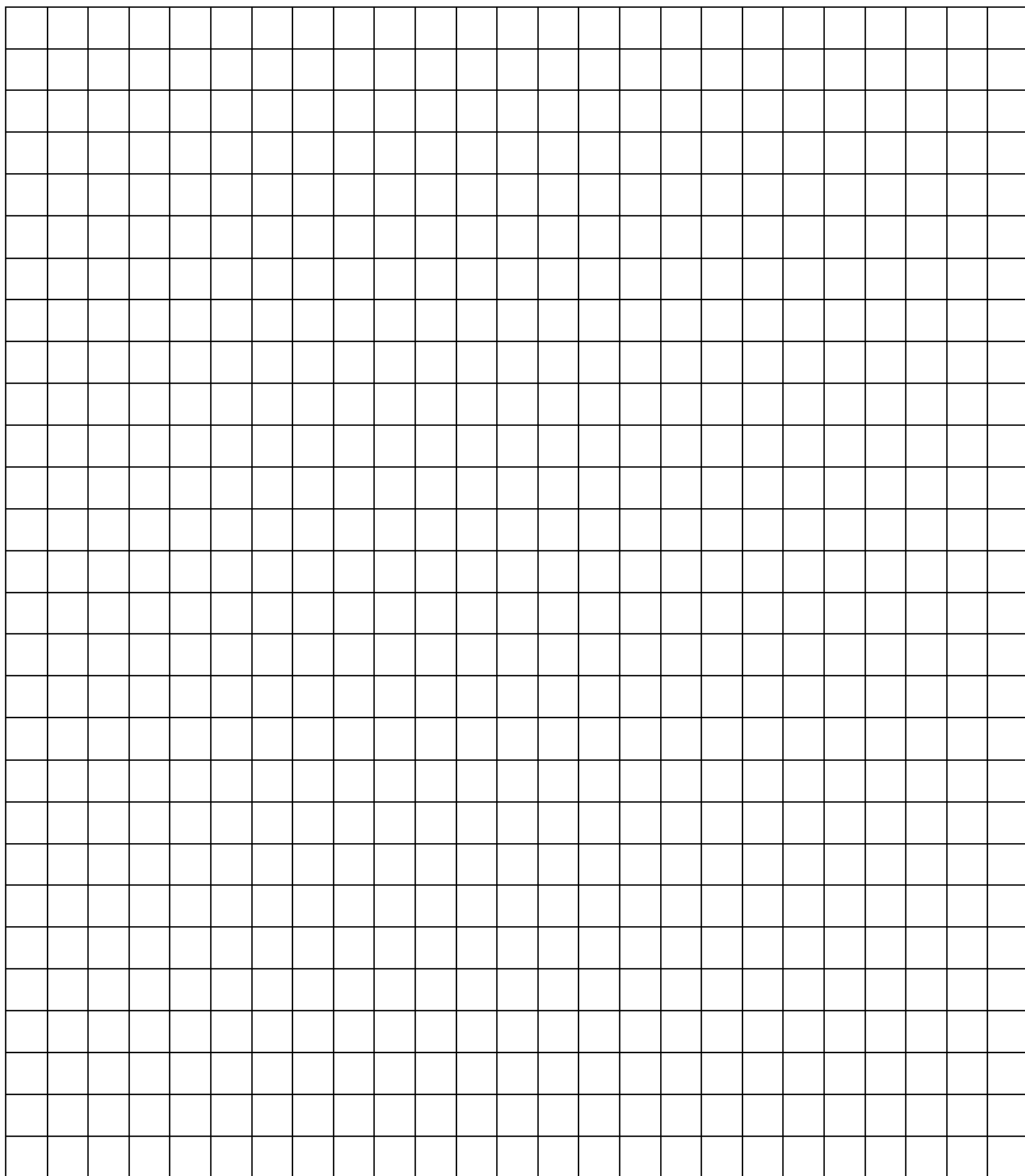


Unit 6, Activity 2, Square Tile



Unit 6, Activities 2, 3, 7, and 14, Grid Paper



Unit 6, Activities 2, Perfect Squares

Name _____ Date _____

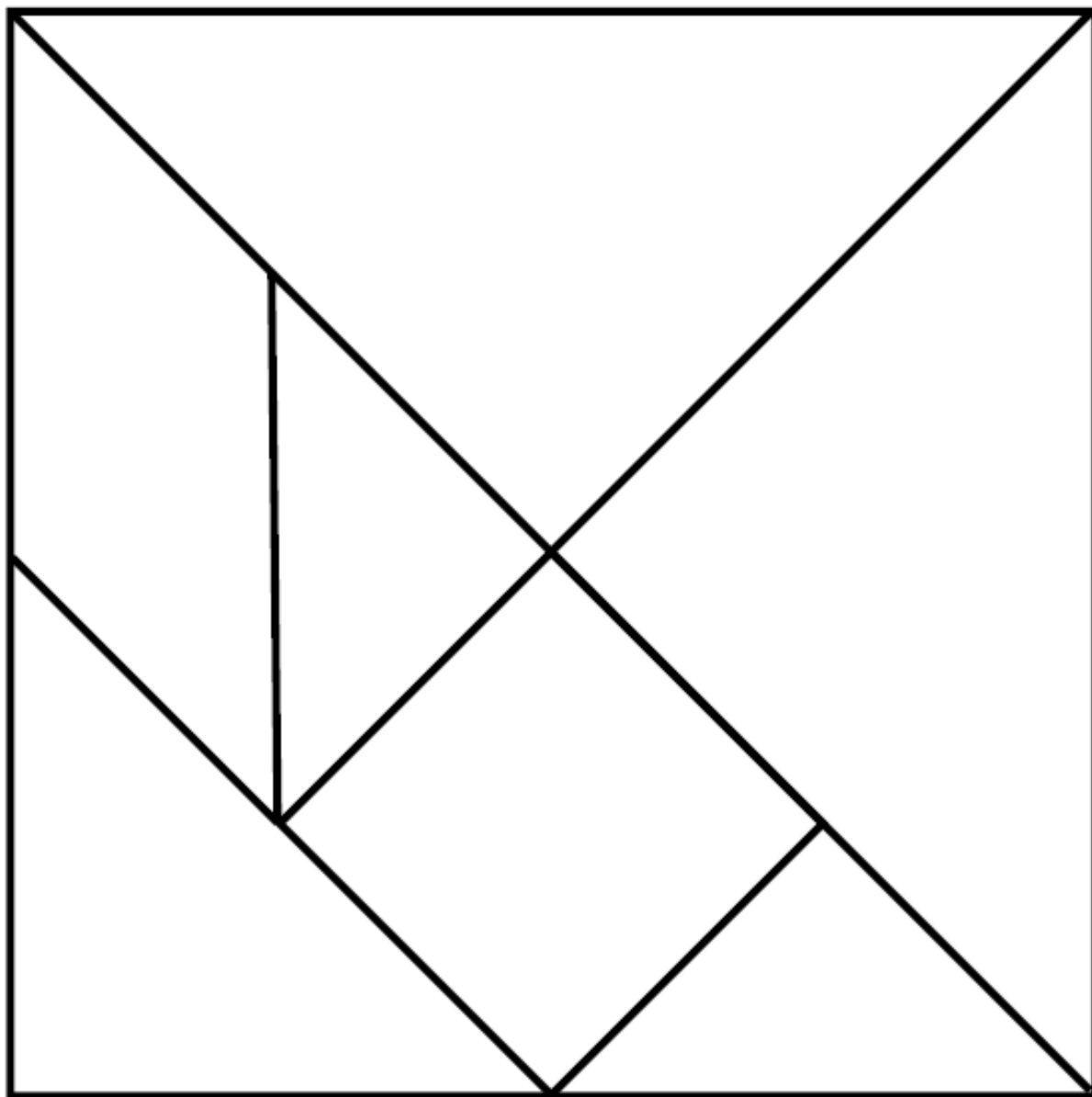
Dimensions of the Square (units)	Number Squared	Area (square units)

Unit 6, Activities 2, Perfect Squares with Answers

Name _____

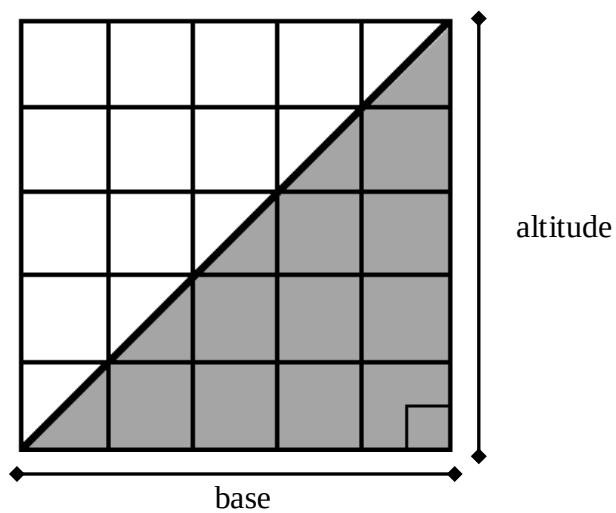
Date _____

Dimensions of the Square (units)	Number Squared	Area (square units)
1×1	1^2	1
2×2	2^2	4
3×3	3^2	9
4×4	4^2	16
5×5	5^2	25
6×6	6^2	36
7×7	7^2	49
8×8	8^2	64
9×9	9^2	81
10×10	10^2	100
11×11	11^2	121
12×12	12^2	144

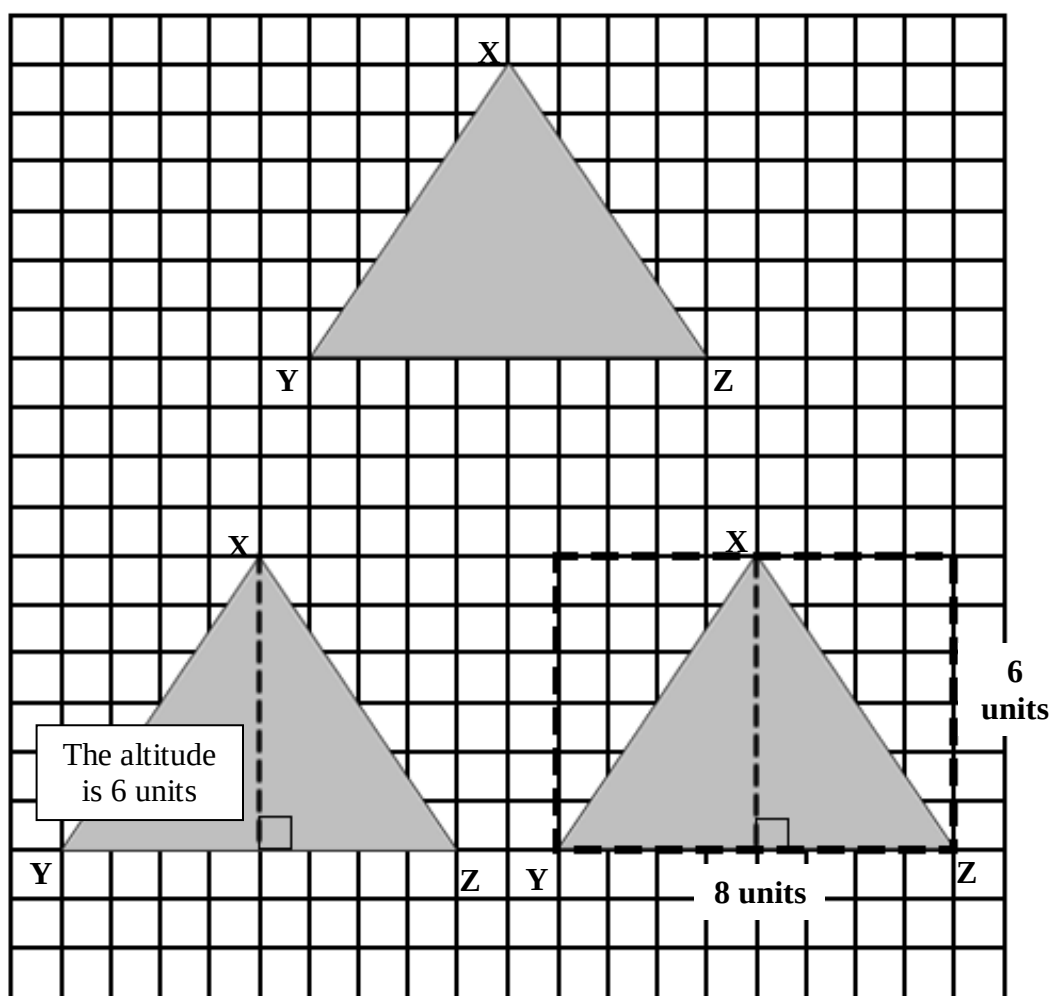


Unit 6, Activity 5, Triangle

Part A



Part B



Unit 6, Activity 5, Area

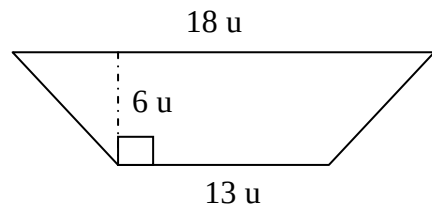
Name _____

Date _____

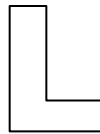
Solve the following problems.

1. Find the area of a triangle with a base length of five units and a height of six units.

2. Find the area of the trapezoid shown below by decomposing it into a rectangle and triangles.



3. The sixth grade class at Louisiana Middle School is building a giant wooden L for their school. The L will be 12 feet tall and 8 feet wide and the thickness of the block letter will be 2.5 feet. What is the area of the L?



Unit 6, Activity 5, Area with Answers

Name _____

Date _____

Solve the following problems.

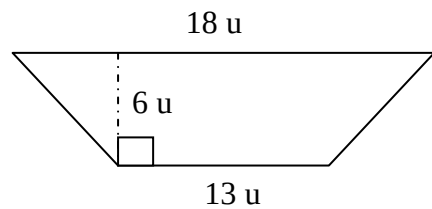
- Find the area of a triangle with a base length of five units and a height of six units.

$$A = \frac{1}{2} (b \times h)$$

$$A = \frac{1}{2} (5 \times 6)$$

$$A = 15 \text{ square units}$$

- Find the area of the trapezoid shown below by decomposing it into a rectangle and triangles.



Area of 1 Triangle

$$\text{Base} = 2.5 \text{ u}$$

$$\text{Height} = 6 \text{ u}$$

$$\frac{1}{2} (2.5 \times 6)$$

$$7.5 \text{ sq. units}$$

Rectangle

$$\text{Length} = 13 \text{ u}$$

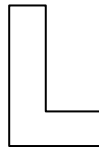
$$\text{Width} = 6 \text{ u}$$

$$13 \times 6$$

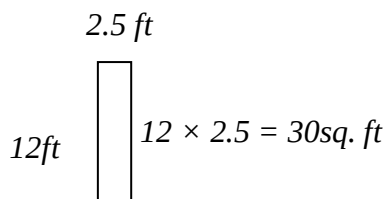
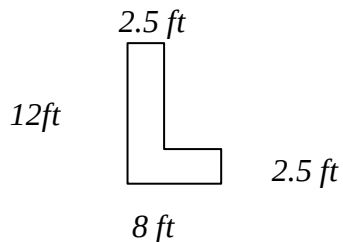
$$78 \text{ sq. units}$$

$$7.5 + 7.5 + 78 = 93 \text{ sq. units}$$

- The sixth grade class at Louisiana Middle School is building a giant wooden L for their school. The L will be 12 feet tall and 8 feet wide and the thickness of the block letter will be 2.5 feet. What is the area of the L?



One possible way to find the area



$$12 \times 2.5 = 30 \text{ sq. ft}$$

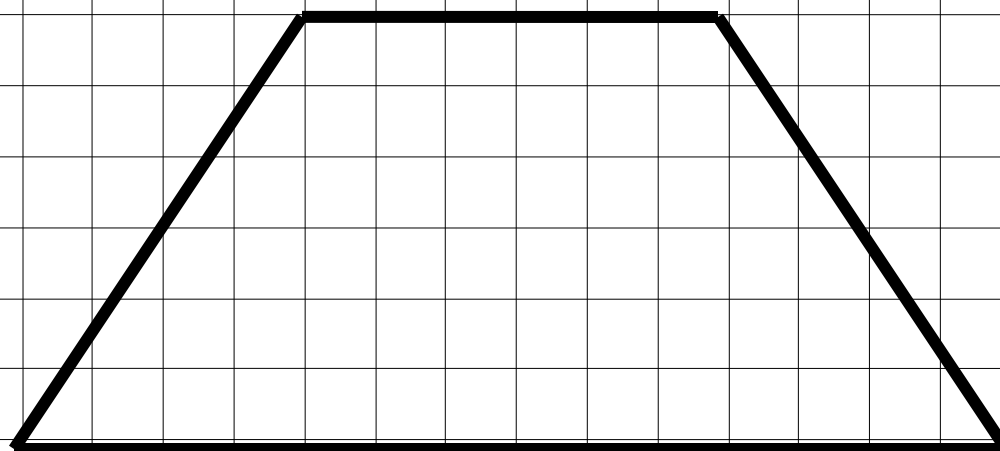
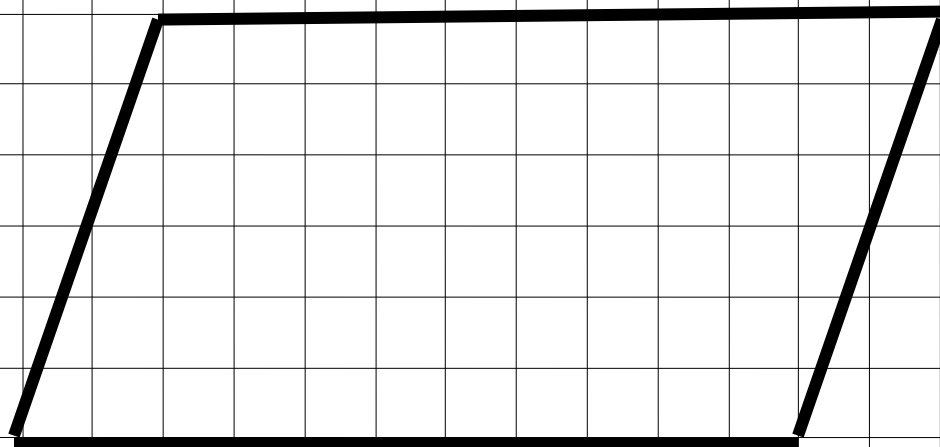
$$5.5 \text{ ft}$$

$$2.5 \text{ ft}$$

$$5.5 \times 2.5 = 13.75 \text{ sq. ft}$$

$$30 + 13.75 = 43.75 \text{ sq. ft}$$

Unit 6, Activity 6, Quadrilaterals



Unit 6, Activity 6, iLEAP Reference Sheet

integrated

iLEAP

Mathematics Reference Sheet—Grade 6

Use the information below to answer questions on the Math test.

U.S. Unit Conversions

1 foot = 12 inches

1 yard = 3 feet

1 mile = 5,280 feet

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 Unit Conversions

1 meter = 1,000 millimeters

1 meter = 100 centimeters

1 kilometer = 1,000 meters

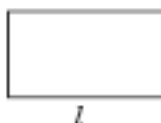
1 liter = 1,000 milliliters

1 kilogram = 1,000 grams

Distance Formula:

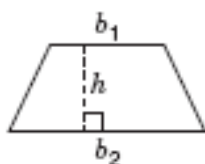
distance = rate • time

Rectangle



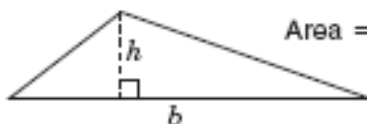
Area = $l \cdot w$
Perimeter = $2 \cdot (l + w)$

Trapezoid



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

Triangle



Area = $\frac{1}{2} \cdot b \cdot h$

Parallelogram



Area = $b \cdot h$

Mean: In a collection of data, the sum of all the data divided by the number of data

Median: The middle number or average of the two middle numbers in a collection of data when the data are arranged in order

Mode: The number or numbers that occur most often in a collection of data

Range: The difference between the greatest and the least numbers in a collection of data

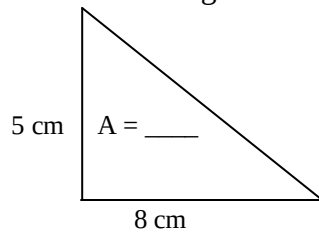
Unit 6, Activity 6, Area and Perimeter

Name _____

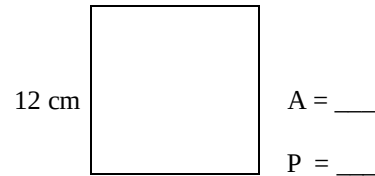
Date _____

Use the formulas on the iLEAP Reference sheet to solve the following problems.

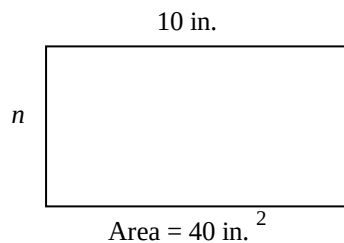
1. Find the missing value.



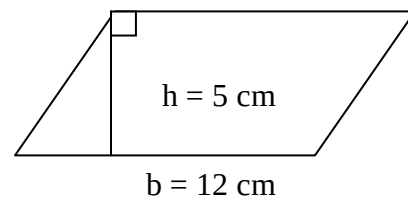
2. Find the perimeter and area of the following square.



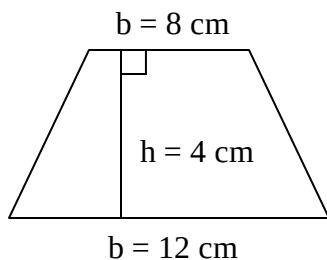
3. Find the value of n in the rectangle.



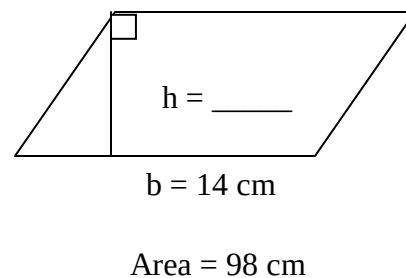
4. Find the area of the parallelogram.



5. Find the area of the trapezoid.



6. Find the height of the parallelogram.



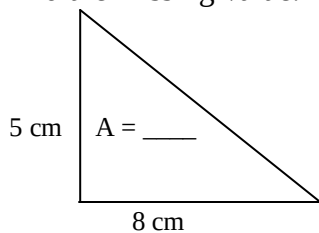
Unit 6, Activity 6, Area and Perimeter with Answers

Name _____

Date _____

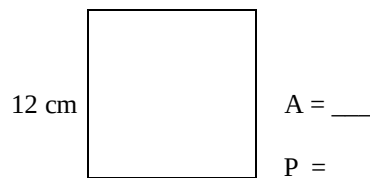
Use the formulas on the iLEAP Reference sheet to solve the following problems.

1. Find the missing value.



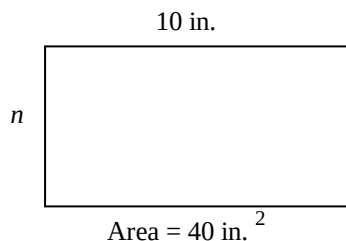
$$\text{Area} = 20 \text{ cm}^2$$

2. Find the perimeter and area of the following square.



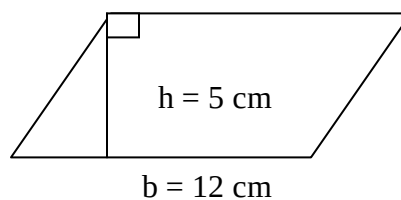
$$\text{Area} = 144 \text{ cm}^2 \quad \text{Perimeter} = 48 \text{ cm}$$

3. Find the value of n in the rectangle.



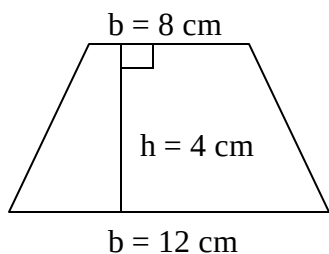
$$n = 4 \text{ in.}$$

4. Find the area of the parallelogram.



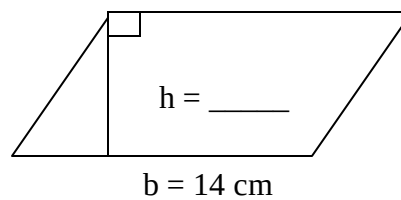
$$\text{Area} = 60 \text{ cm}^2$$

5. Find the area of the trapezoid.



$$\text{Area} = 40 \text{ cm}^2$$

6. Find the height of the parallelogram.

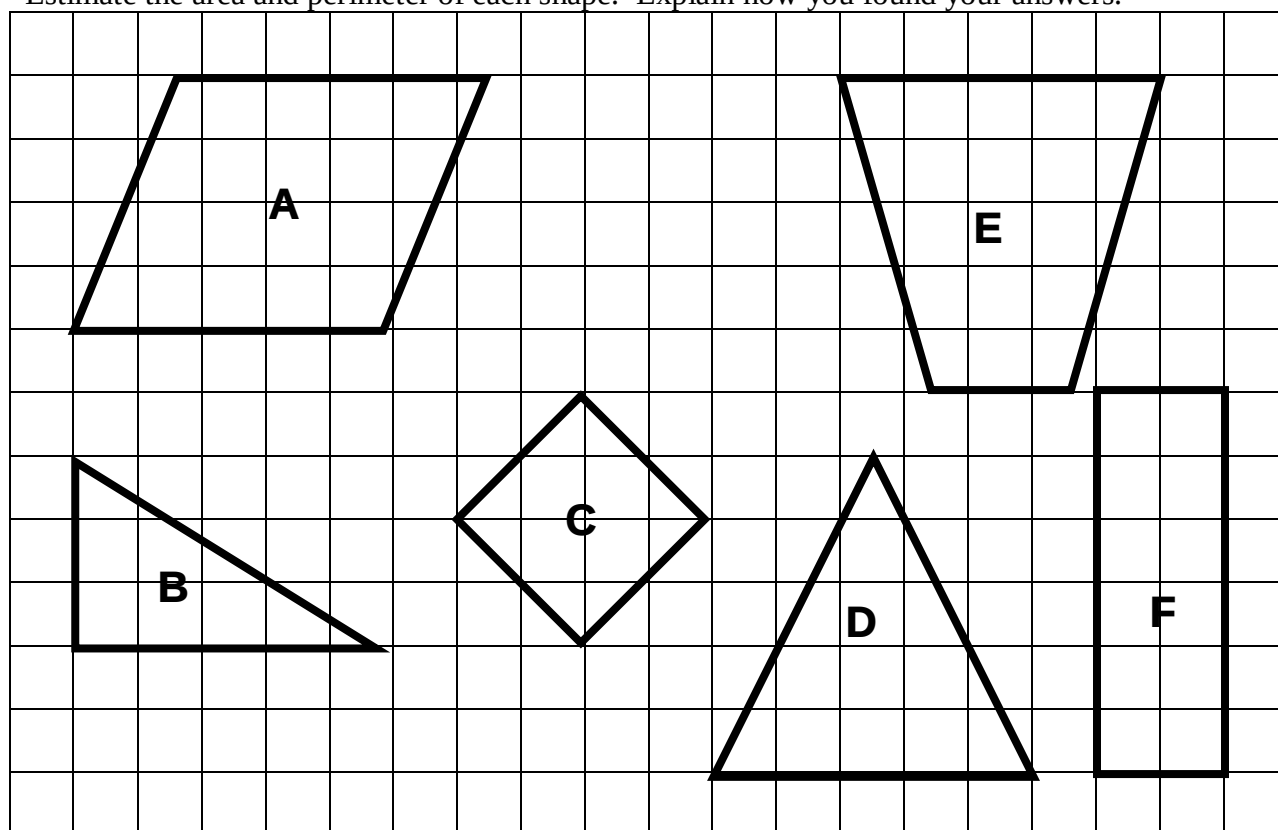


$$\text{Area} = 98 \text{ cm}^2$$

$$h = 7 \text{ cm}$$

Unit 6, Activity 7, 2-D Shapes

Estimate the area and perimeter of each shape. Explain how you found your answers.



A. area = _____

perimeter = _____

B. area = _____

perimeter = _____

C. area = _____

perimeter = _____

D. area = _____

perimeter = _____

E. area = _____

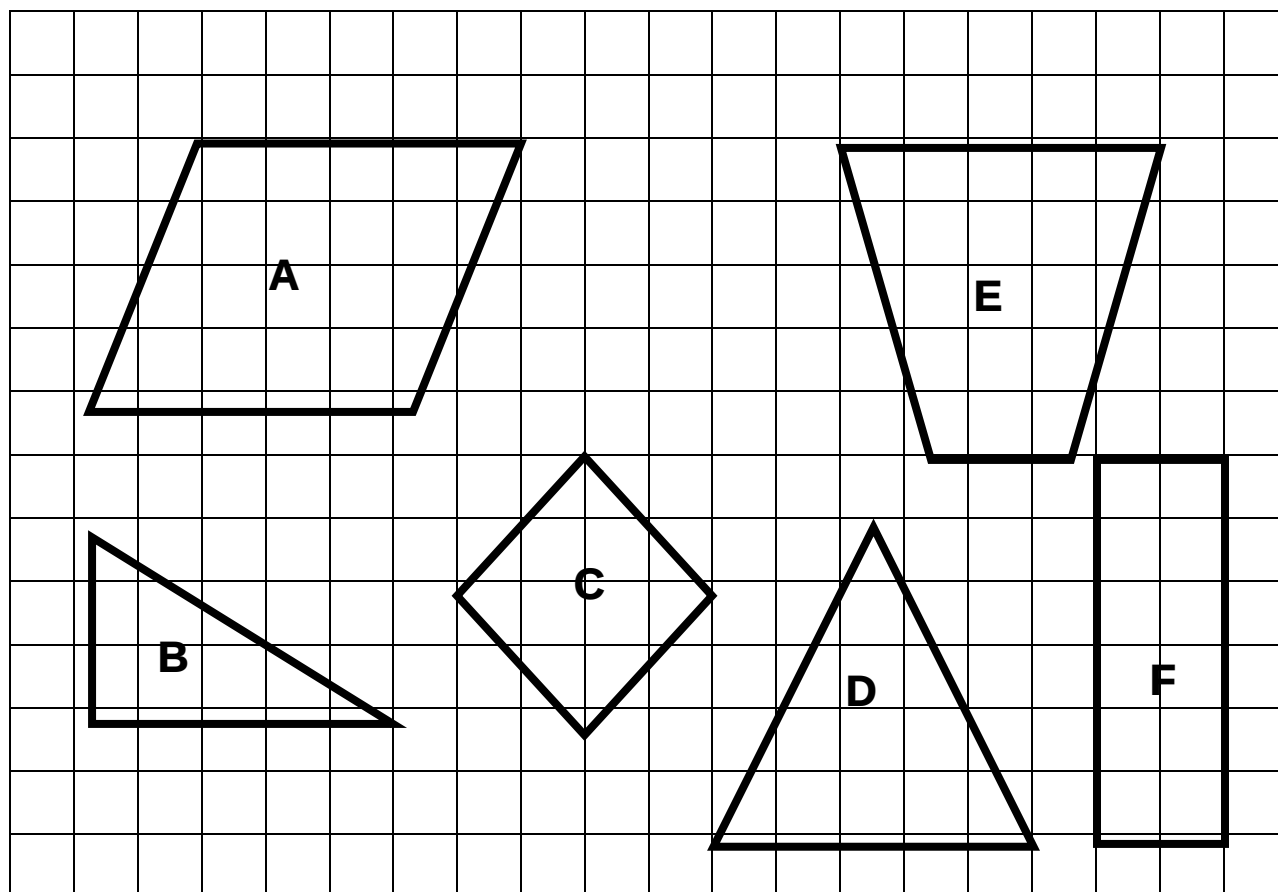
perimeter = _____

F. area = _____

perimeter = _____

Unit 6, Activity 7, 2-D Shapes with Answers

Estimate the area and perimeter of each shape. Explain how you found your answers.



A. area = $\approx 21 \text{ units}^2$ perimeter = $\approx 20 \text{ units}$

B. area = $\approx 7 \text{ units}^2$ perimeter = $\approx 13 \text{ units}$

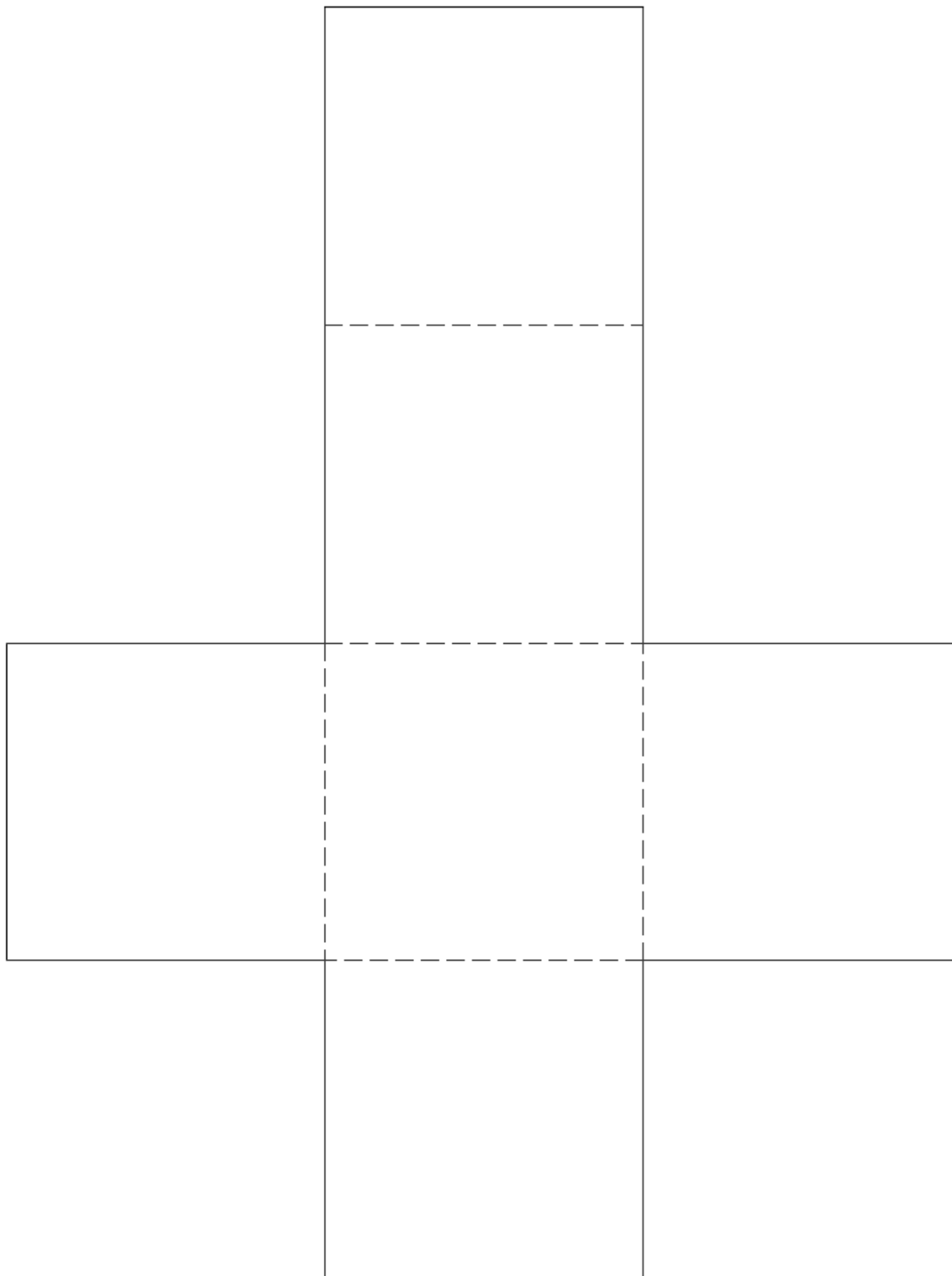
C. area = $\approx 9 \text{ units}^2$ perimeter = $\approx 12 \text{ units}$

D. area = $\approx 13 \text{ units}^2$ perimeter = $\approx 16 \text{ units}$

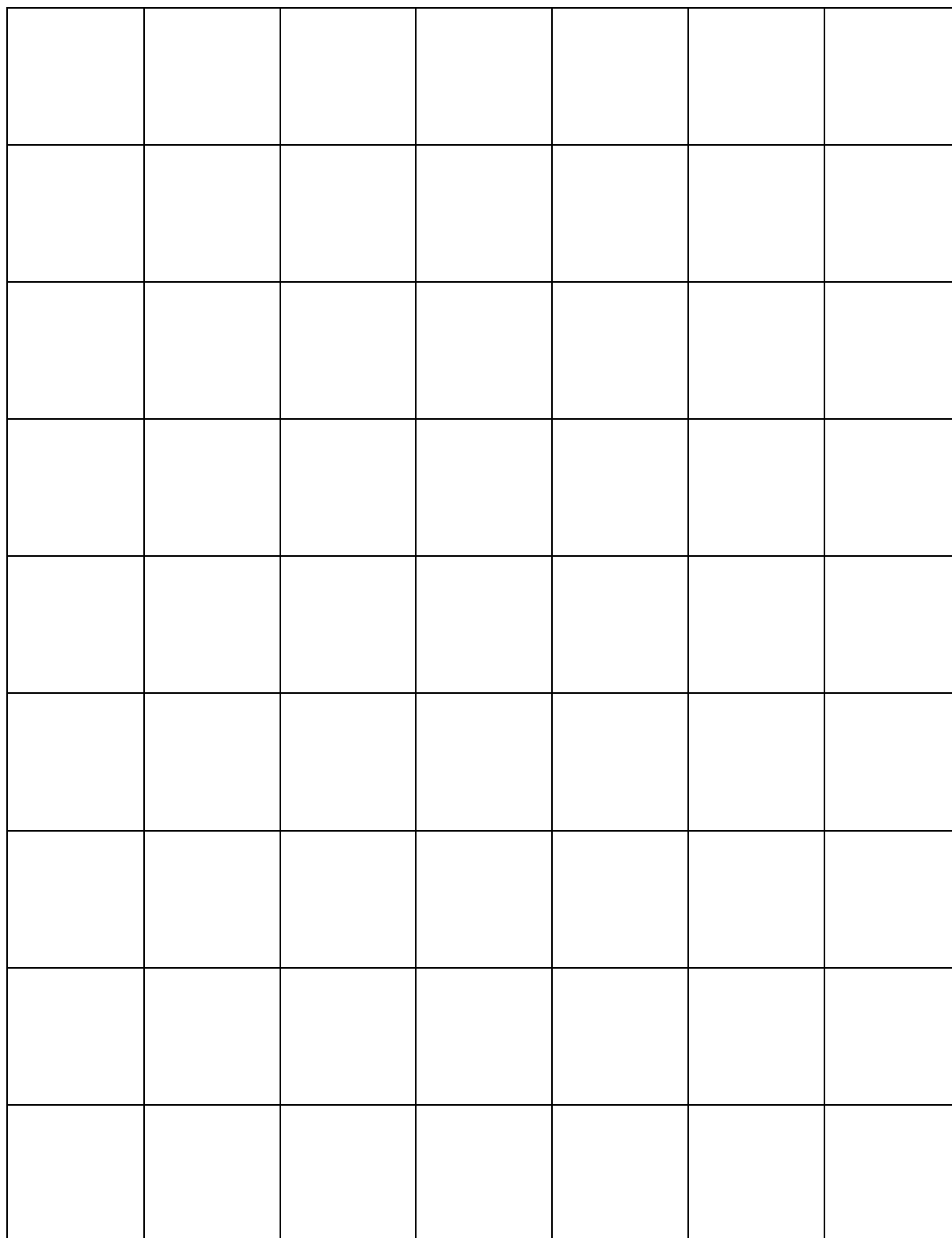
E. area = $\approx 18 \text{ units}^2$ perimeter = $\approx 17 \text{ units}$

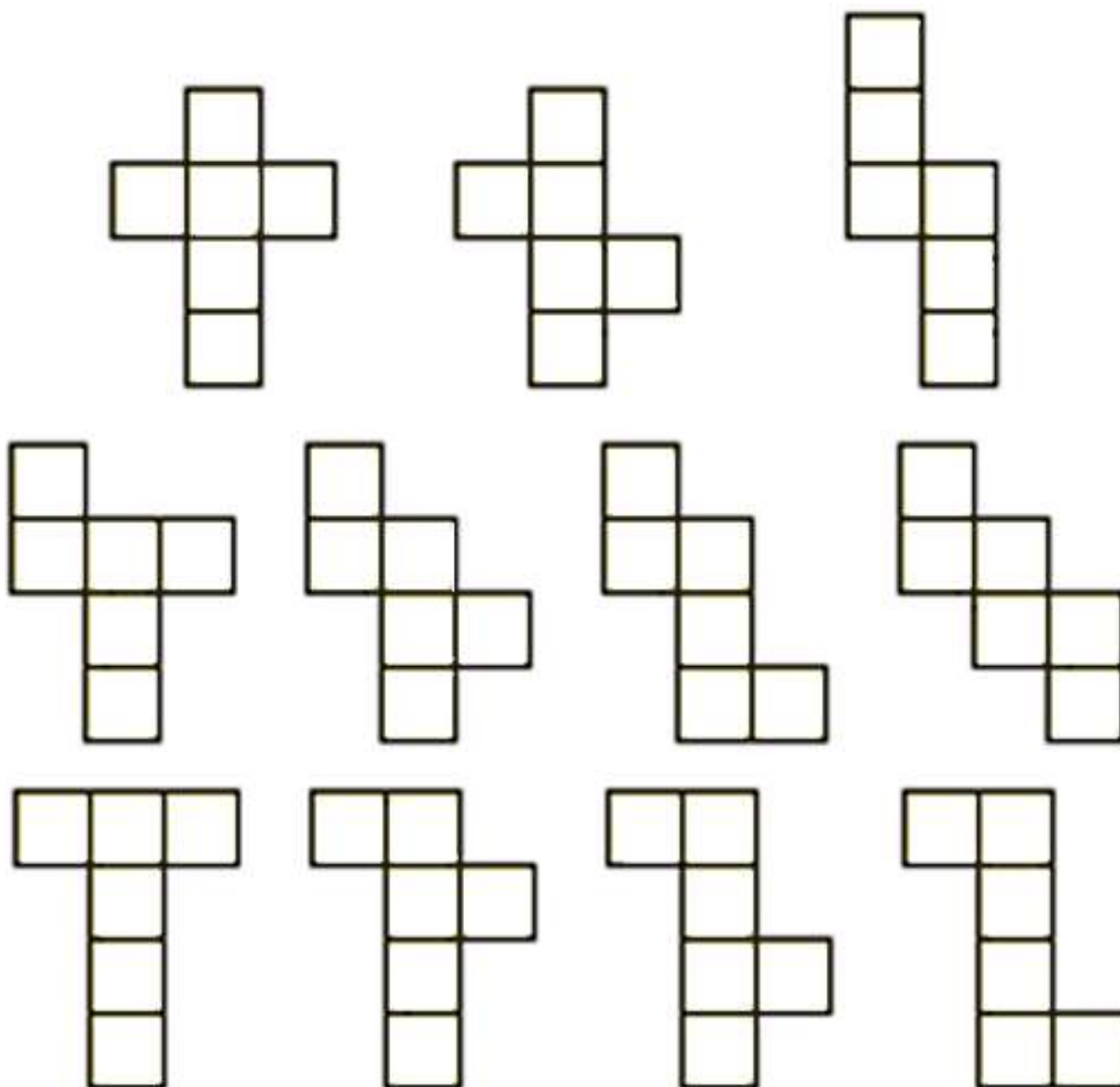
F. area = $\approx 12 \text{ units}^2$ perimeter = $\approx 16 \text{ units}$

Unit 6, Activity 10, Cube Net



Unit 6, Activities 10 and 11, 1 Inch Grid Paper





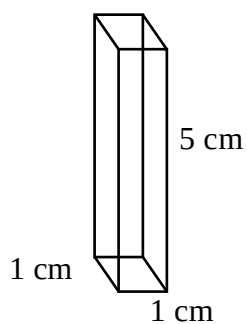
Unit 6, Activity 11, Surface Area

Name _____

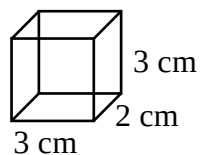
Date _____

Draw the net and label the dimensions. Find the surface area.

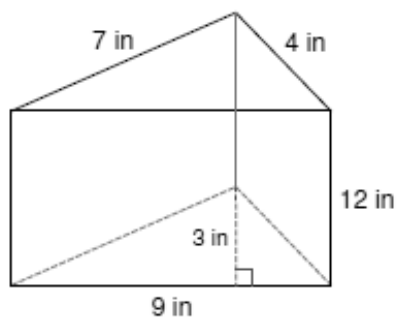
1.



2.



3.



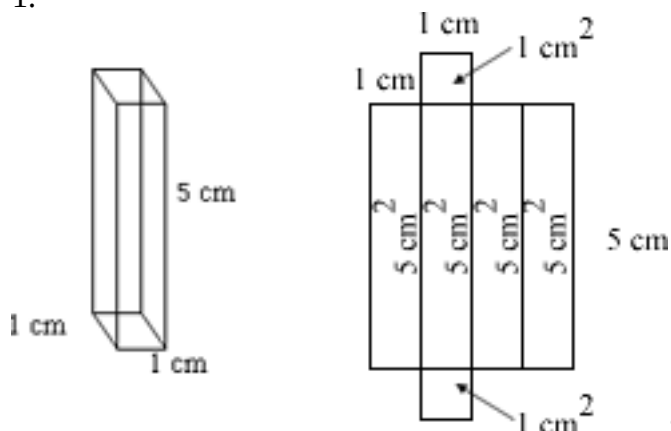
Unit 6, Activity 11, Surface Area with Answers

Name _____

Date _____

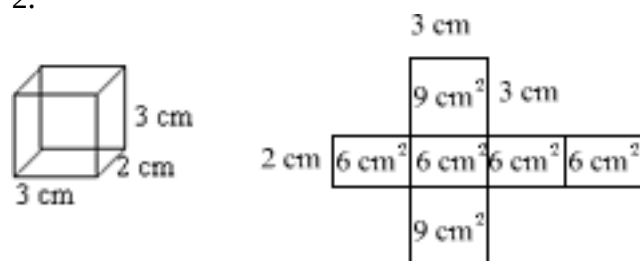
Draw the net and label the dimensions. Find the surface area.

1.



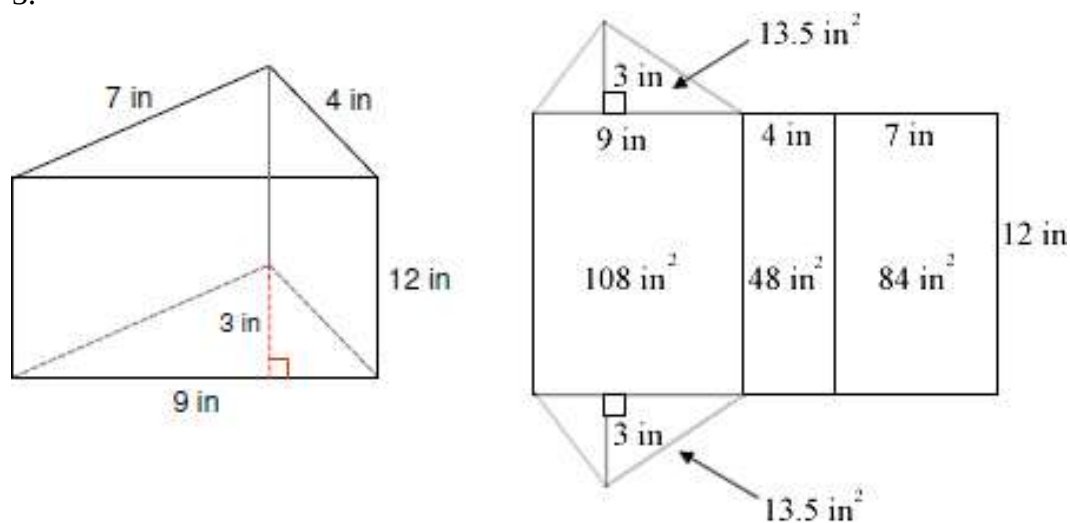
$$SA = 1 + 1 + 5 + 5 + 5 + 5 = 22 \text{ cm}^2$$

2.



$$SA = 9 + 9 + 6 + 6 + 6 + 6 = 42 \text{ cm}^2$$

3.



$$SA = 13.5 + 13.5 + 108 + 48 + 84 = 267 \text{ in}^2$$

Unit 6, Activity 13, Exploring Volume

Figure 1:

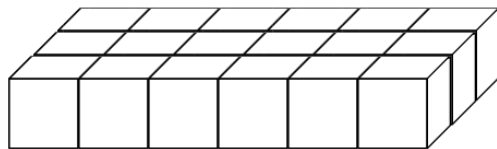


Figure 2:

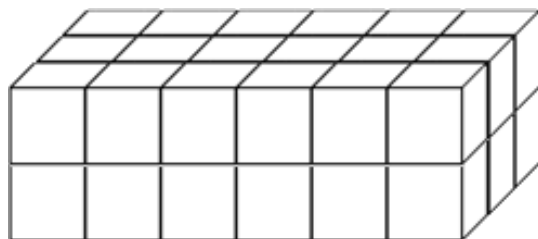
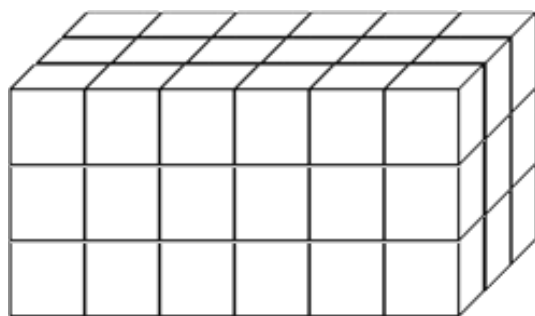


Figure 3:



Unit 6, Activity 13, Volume

Name _____

Date _____

Solve the following problems.

Given the following dimensions, find the volume of each rectangular prism.

1. $l = 4 \text{ ft}$ $w = 2 \text{ ft}$ $h = 4 \frac{1}{2} \text{ ft}$

2. $l = 2 \text{ cm}$ $w = 6 \text{ cm}$ $h = 7.5 \text{ cm}$

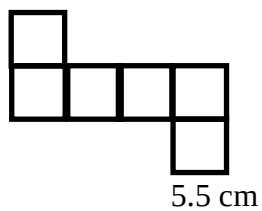
3. $l = 9 \text{ in}$ $w = 10 \frac{1}{2} \text{ in}$ $h = 4 \text{ in}$

4. $l = 4 \frac{1}{2} \text{ m}$ $w = 4.5 \text{ m}$ $h = 4.5 \text{ m}$

5. $l = 1 \frac{1}{2} \text{ ft}$ $w = 2.5 \text{ ft}$ $h = 6.5 \text{ ft}$

6. A sand box is 5 ft. long $4\frac{3}{4}$ ft. wide and $1\frac{1}{2}$ ft. deep. How many cubic feet of sand can it hold?

7. Find the volume.



Unit 6, Activity 13, Volume with Answers

Name _____

Date _____

Solve the following problems.

Given the following dimensions, find the volume of each rectangular prism.

1. $l = 4 \text{ ft}$ $w = 2 \text{ ft}$ $h = 4 \frac{1}{2} \text{ ft}$ 36 ft^3

2. $l = 2 \text{ cm}$ $w = 6 \text{ cm}$ $h = 7.5 \text{ cm}$ 90 cm^3

3. $l = 9 \text{ in}$ $w = 10 \frac{1}{2} \text{ in}$ $h = 4 \text{ in}$ 378 in^3

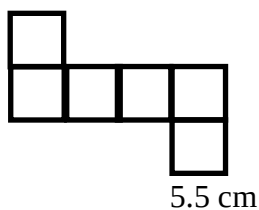
4. $l = 4 \frac{1}{2} \text{ m}$ $w = 4.5 \text{ m}$ $h = 4.5 \text{ m}$ $91.125 \text{ m}^3 \text{ or } 91 \frac{1}{8} \text{ m}^3$

5. $l = 1 \frac{1}{2} \text{ ft}$ $w = 2.5 \text{ ft}$ $h = 6.5 \text{ ft}$ $24.375 \text{ ft}^3 \text{ or } 24 \frac{3}{8} \text{ ft}^3$

6. A sand box is 5 ft. long $4 \frac{3}{4}$ ft. wide and $1 \frac{1}{2}$ ft. deep. How many cubic feet of sand can it hold?

$$35.625 \text{ ft}^3 \text{ or } 35 \frac{5}{8} \text{ ft}^3$$

7. Find the volume.



$$5.5 \times 5.5 \times 5.5 = 166.375 \text{ cm}^3 \text{ or } 166 \frac{3}{8} \text{ cm}^3$$