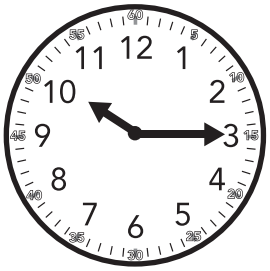
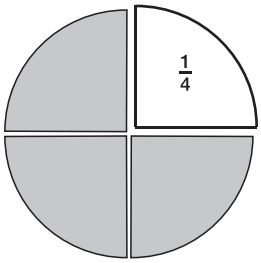
Name _____

Use a Write-On/Wipe-Off Clock to model the time on each clock. Use Fraction Circles to model the number of minutes shown by the minute hand. Write the time in standard form and then using the words *quarter* or *half*.

1.

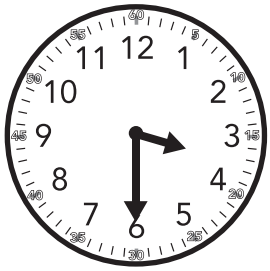


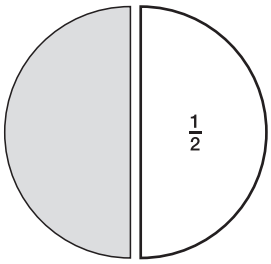


Time: _____

_____

2.



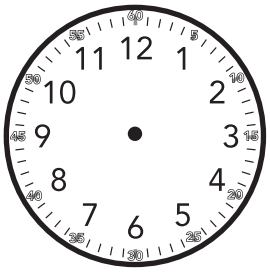


Time: _____

_____

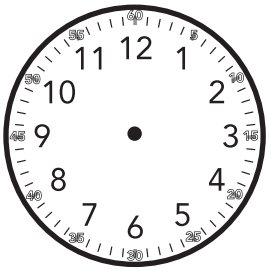
Using a Write-On/Wipe-Off Clock and Fraction Circles, model each time given. Sketch the minute and hour hands on the clock. Write the time using numbers.

3. half past noon



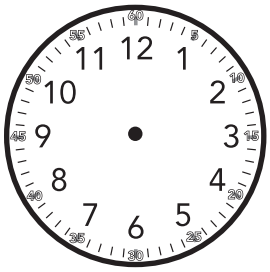
_____

4. quarter after 5



_____

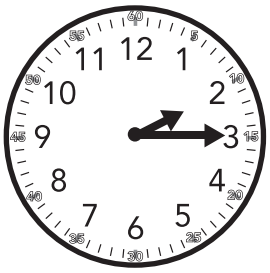
5. 20 minutes after 8



_____

Write the time shown on each clock.

6.



_____

7.

_____

8.

_____

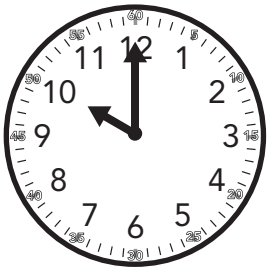
Name _____

Challenge! What number on the face of a clock corresponds to the phrase "a quarter after"? What number on the face of a clock corresponds to the phrase "half past"? What number on the face of the clock corresponds to "a quarter to" the hour? Draw pictures to help.

Name _____

Use a Write-On/Wipe-Off Clock to model the times shown on each clock. Write the starting time and ending time. Find the elapsed time.

1.



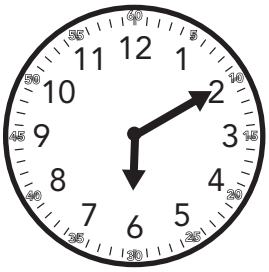
Start

End

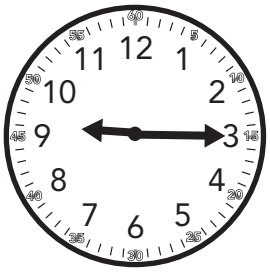
_____ _____

Elapsed time: _____

2.



Start



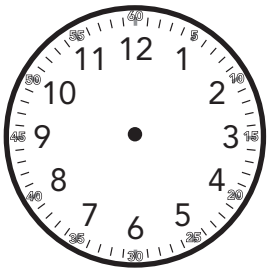
End

_____ _____

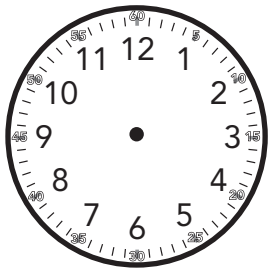
Elapsed time: _____

Using a Write-On/Wipe-Off Clock, model the starting and ending times given. Sketch the minute and hour hands on the clocks below. Find the elapsed time.

3.



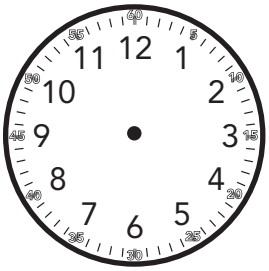
Start: 8:20



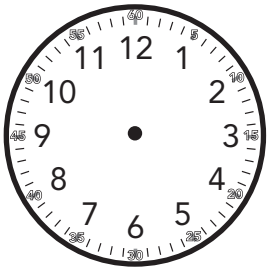
End: 10:00

Elapsed time: _____

4.



Start: 4:45



End: 9:00

Elapsed time: _____

Find each elapsed time.

5. 11:15 A.M. to 2:15 P.M. _____

6. 5:15 P.M. to 7:00 P.M. _____

7. 1:45 A.M. to 4:30 A.M. _____

8. 8:30 A.M. to 10:45 A.M. _____

9. 3:50 P.M. to 6:00 P.M. _____

10. 12:00 P.M. to 4:30 P.M. _____

Name _____

Challenge! Explain why Problem 5 was easier to answer than Problem 6. Explain why Problem 10 was easier to answer than Problem 9.

Name _____

Use a Write-On/Wipe-Off Clock to model the start time and add the time intervals. Write the end time.

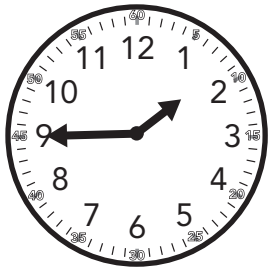
1. Start at 3:15. Add 15 minutes, then 10 minutes.

Start

End

End time: _____

2. Start at 1:45. Add 5 minutes, then 15 minutes.



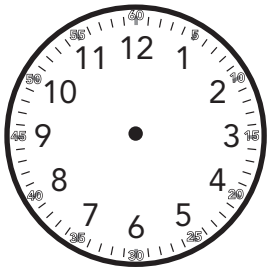
Start

End

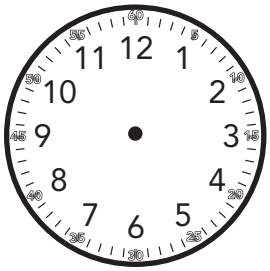
End time: _____

Using a Write-On/Wipe-Off Clock, model the start time and given time intervals. Draw the clock hands to show the start and end times. Write the end time.

3. Start at 6:30. Add 30 minutes, then 15 minutes.



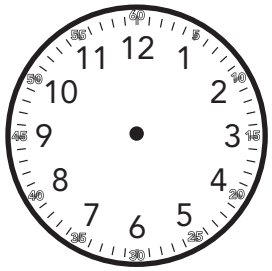
Start



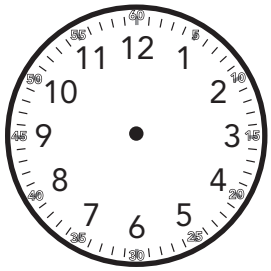
End

End time: _____

4. Start at 9:10. Add 10 minutes, then 20 minutes.



Start



End

End time: _____

Find the end time.

5. Start at 2:00. Add 40 minutes, then 10 minutes.

_____

6. Start at 7:20. Add 15 minutes, then 20 minutes.

_____

7. Start at 4:10. Add 25 minutes, then 10 minutes.

_____

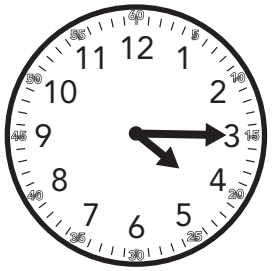
Name _____

Challenge! Model Problems 5, 6, and 7 using Time Interval Rods with Time Work Mats. Do you prefer to use rods or clocks when adding times? Explain.

Name _____

Use a Write-On/Wipe-Off Clock to model the start time and elapsed times. Write the end time.

1. Taylor started her run at 4:15. She ran for 35 minutes. What time did Taylor finish running?



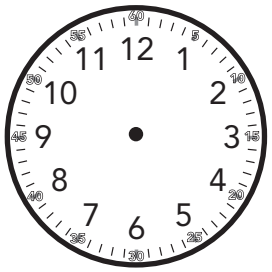
Start

End

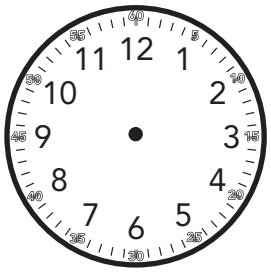
End time: _____

Using a Write-On/Wipe-Off Clock, model the start time and end time. Draw the hands on the clocks. Write the elapsed time.

2. Bob started reading at 9:35. He stopped reading at 10:20. How long did Bob read?



Start



End

Elapsed time: _____

Find the end time.

3. Rosa rode her bike for 50 minutes. If she started at 4:05, what time did she finish?

End time: _____

4. Saul swam for 55 minutes. If he started at 6:10, what time did he finish?

End time: _____

Name _____

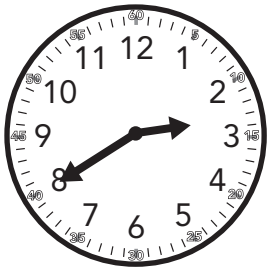
Challenge! Jason took a nap. When he lay down, the clock said 5:10. When he woke up, the clock said 6:25. How long did Jason nap? Write how much time passed while Jason was napping. Explain how you know.

Name _____

Use a Write-On/Wipe-Off Clock to model the elapsed time. Write the start time.

1. Jared practiced his drum for 40 minutes. He finished practicing at 3:20. What time did he start practicing?

End

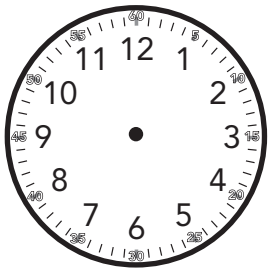


Start

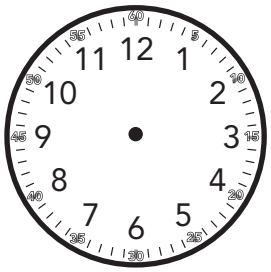
Start time: _____

Using a Write-On/Wipe-Off Clock, model the elapsed time. Draw the hands on the clock. Write the start time.

2. It took Gene 25 minutes to mow the lawn. He finished at 5:30. What time did he start mowing the lawn?



End



Start

Start time: _____

Find the start time.

3. Ashley has gymnastics for 40 minutes. Her class is over at 6:45. What time does her gymnastics class start?

Start time: _____

4. Sonia's softball practice was over at 4:10. Her practice lasted 50 minutes. What time did her practice start?

Start time: _____

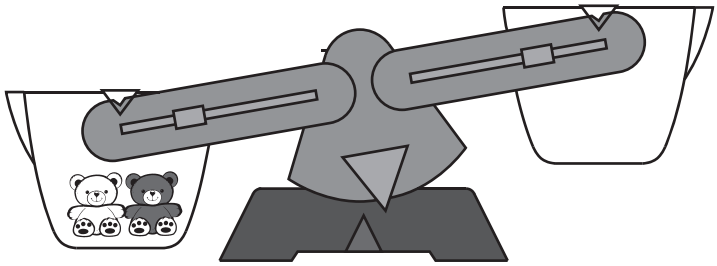
Name _____

Challenge! The soccer game ended at 6:30. There were two 20-minute halves and a 5-minute halftime. Use a clock or number line to find what time the second half started, when halftime started, and when the game started. Then write the times.

Name _____

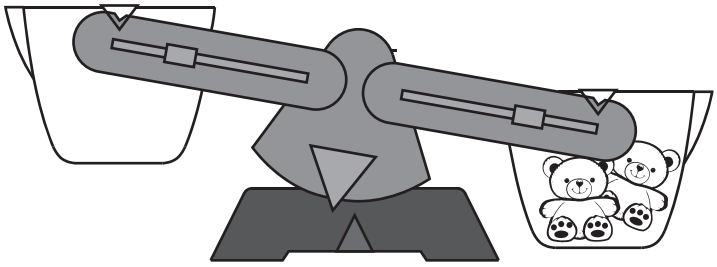
Use Three Bear Family Counters, Centimeter Cubes, and a balance to model weight. Find the weight, in grams, of each group of counters. (Each cm cube = 1 gram.)

1. 

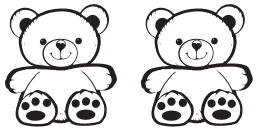


 = _____ cubes = _____ grams

2. 



 = _____ cubes = _____ grams

3.  = _____ cubes = _____ grams

Locate each item named. Use a balance to find each weight in grams.

4. pencil

_____ cubes = _____ grams

5. empty envelope

_____ cubes = _____ grams

6. paper clip

_____ cube(s) = _____ gram(s)

7. penny

_____ cubes = _____ grams

8. quarter

_____ cubes = _____ grams

9. dollar bill

_____ cube(s) = _____ gram(s)

Name _____

Challenge! Use your answers to Problems 7 and 8 to find the weight of a stack of each coin that would be worth $1.00. Show your work.

Name _____

Use Three Bear Family Counters to model the pictograph. Make a tally chart from which the pictograph was made.

1.

Week								
1								
2								
3								
4								

 = 4 Cars

Week 1	
Week 2	
Week 3	
Week 4	

Using Three Bear Family Counters, model a pictograph using the data in the tally chart. Sketch your graph below. Write the number of bears for each week.

2.

Week 1	𝍸 𝍸 𝍸
Week 2	𝍸
Week 3	𝍸 𝍸 𝍸 𝍸 𝍸
Week 4	𝍸 𝍸

 = ____ Runs Scored

Number of bears for Week:

1 _____ 2 _____ 3 _____ 4 _____

Make a pictograph for each set of data. W stands for Week.

3. W1: 3, W2: 9, W3: 12, W4: 21

 = ____ Flowers

4. W1: 10, W2: 20, W3: 5, W4: 15

 = ____ Baseball Cards

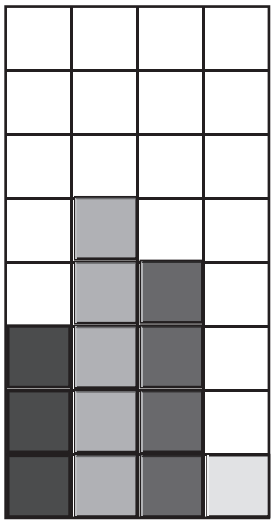
Name _____

Challenge! Explain how to decide the number that each bear will represent.

Name _____

Use Color Tiles to model each bar graph. Record the number for each type of data.

1. **Types of Proteins**

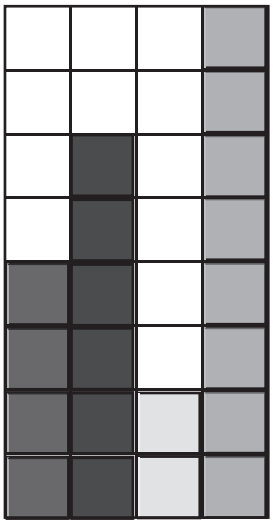


Beef Fish Pork Tofu

Beef _____ Fish _____

Pork _____ Tofu _____

2. **Favorite Drinks**



Juice Milk Soda Water

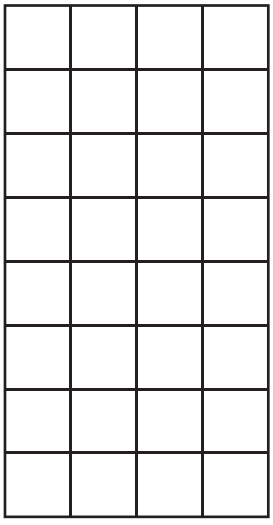
Juice _____ Milk _____

Soda _____ Water _____

Using Color Tiles, model a bar graph for each set of data. Sketch the graph below.

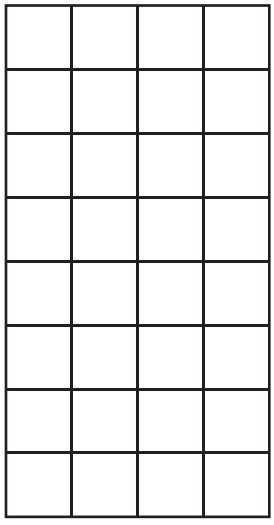
3. Blue: 𝍸 Green: 𝍸 ||

Red: ||| Yellow: 𝍸 |



4. Bird: ||| Cat: ||

Dog: 𝍸 || Fish: 𝍸



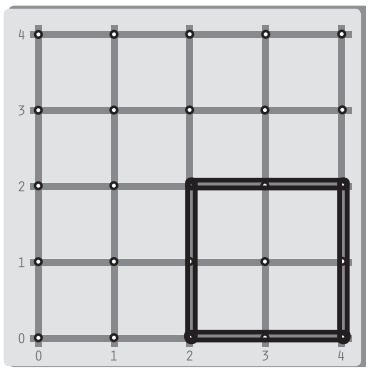
Name _____

Challenge! If you were making a bar graph about five types of flowers, how would you have to change the graphing grid from the grids provided on the previous page? If one of the flowers had 12 tally marks, what would you have to do to be able to use the graphing grids on the previous page?

Name _____

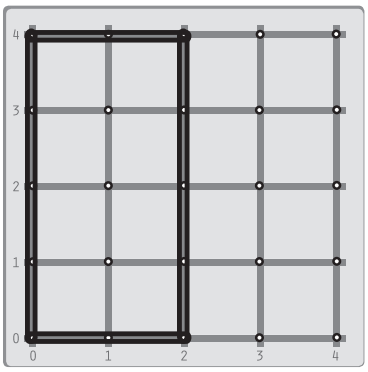
Use a Geoboard to model each shape. Find the area of the shape.

1.



_____ square units

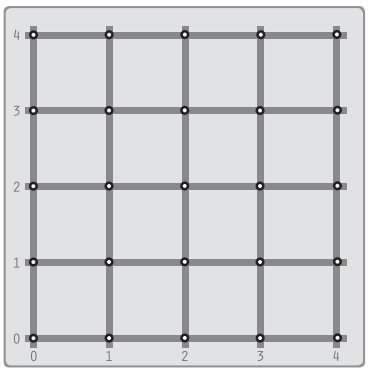
2.



_____ square units

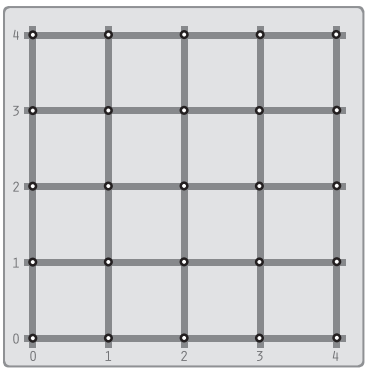
Using a Geoboard, model a shape with the given dimensions. Sketch the shape below. Find the area of the shape.

3. 4 units by 4 units



_____ square units

4. 1 unit by 3 units



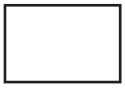
_____ square units

Find the area of each rectangle, given the dimensions.

5.

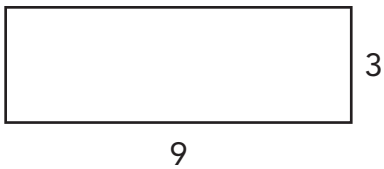
_____units

6.



_____units

7.



_____ units

8.

_____units

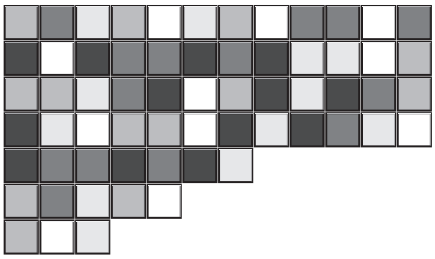
Name _____

Challenge! If you rotate the shape in Problem 2, would the area change? Draw a picture to help. Explain your answer.

Name _____

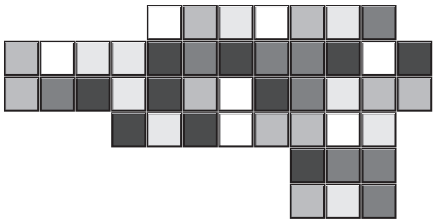
Use Centimeter Cubes to model each irregular shape. The face of each cube equals 1 square centimeter. Find the area of the shape.

1.



_____ square centimeters

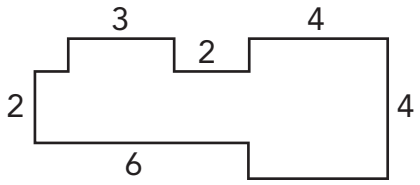
2.



_____ square centimeters

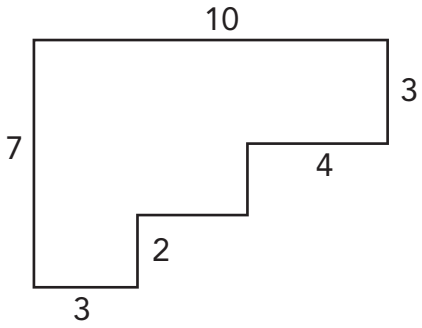
Using Centimeter Cubes, model the shape given. Find the area of the shape.

3.



_____ square centimeters

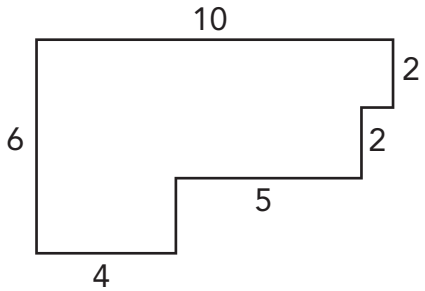
4.



_____ square centimeters

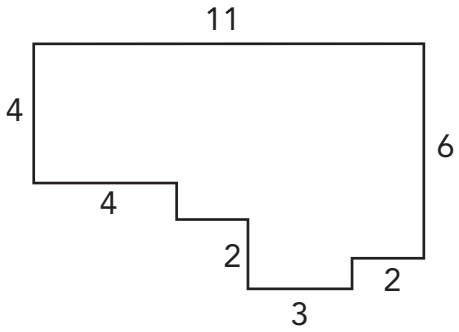
Find the area of each shape.

5.



_____ square centimeters

6.



_____ square centimeters

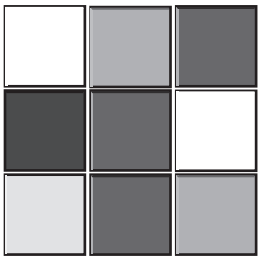
Name _____

Challenge! Describe two ways you can find the area of the shape in Problem 5 using Centimeter Cubes. Draw pictures to help. Which way is useful for finding the area without using the cubes?

Name _____

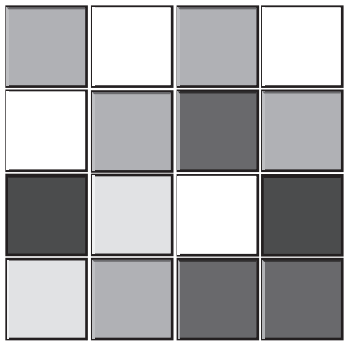
Use Color Tiles. Build each square. What is the area of the square?

1.



_____ square inches

2.



_____ square inches

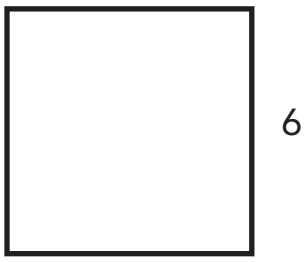
Use Color Tiles. Build each square. Draw the square. Find the area.

3. 5 inches × 5 inches

_____ square inches

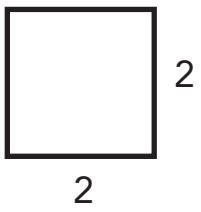
Find each area.

4.



_____ units

5.



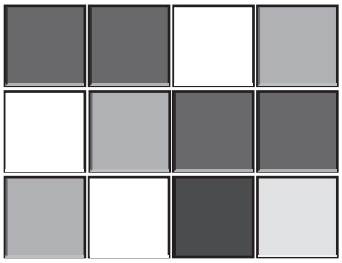
_____ units

Name _____

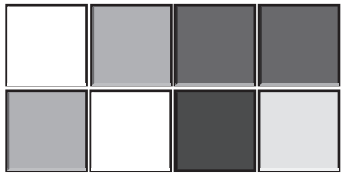
Challenge! How is finding the perimeter of a square different from finding its area?

Name _____

Use Color Tiles. Build each rectangle. What is the area of the rectangle?

1. 

_____ square inches

2. 

_____ square inches

Use Color Tiles. Build each rectangle. Draw the rectangle. Find the area.

3. 2 inches × 3 inches

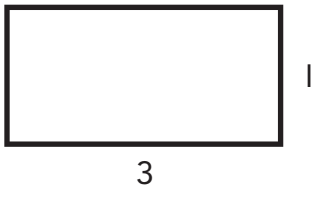
_____ square inches

4. 4 inches × 5 inches

_____ square inches

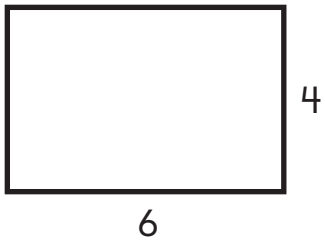
Find each area.

5.



_____ units

6.



_____ units

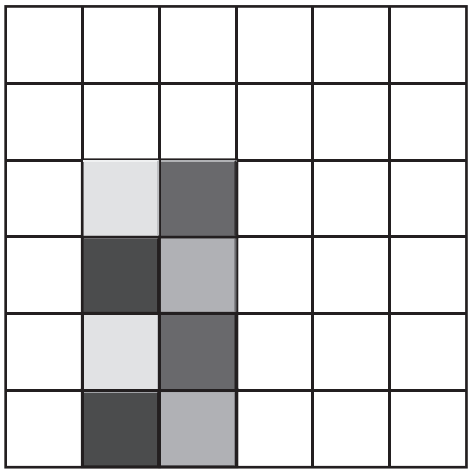
Name _____

Challenge! How do Color Tiles help you find the area of a rectangle? Draw a picture.

Name _____

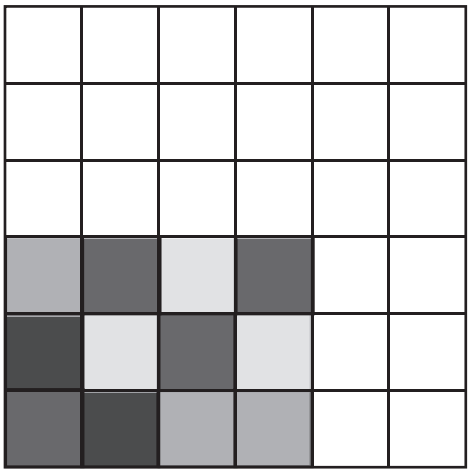
Use Color Tiles to build each model. Expand the rectangle so that it has the given area. Write the dimensions.

1.



A rectangle with an area of 12 square units is _____ × _____.

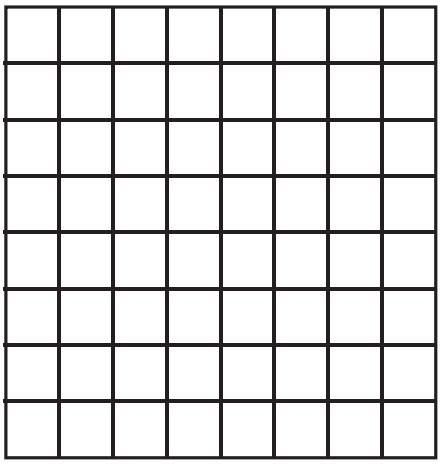
2.



A rectangle with an area of 20 square units is _____ × _____.

Using Color Tiles, model a rectangle with an area of 24 square units. Sketch the model. Write the dimensions.

3. A rectangle with an area of 24 square units is _____ × _____.



Find the area of each rectangle.

4. length: 6 units, width: 3 units

_____ square units

5. length: 4 units, width: 9 units

_____ square units

6. length: 5 units, width: 6 units

_____ square units

7. length: 2 units, width: 7 units

_____ square units

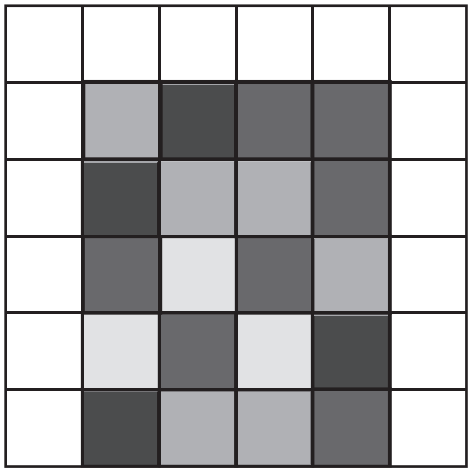
Name _____

Challenge! Describe the relationship between the dimensions of a rectangle and the area of the rectangle. Draw a picture to help. Write a formula for finding the area of a rectangle.

Name _____

Use Color Tiles to model each rectangle. Write its area equation and perimeter equation.

1.



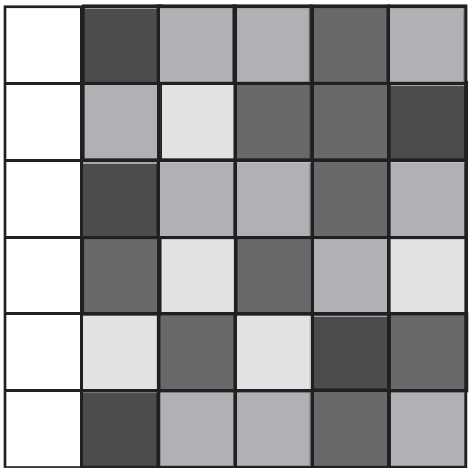
area equation:

_____

perimeter equation:

_____

2.



area equation:

_____

perimeter equation:

_____

Write the area and perimeter equations for each rectangle.

3.

area equation: _____

perimeter equation:

_____

4.

area equation: _____

perimeter equation:

_____

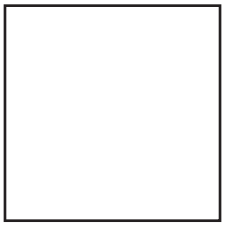
5.

area equation: _____

perimeter equation:

_____

6.



area equation: _____

perimeter equation:

_____

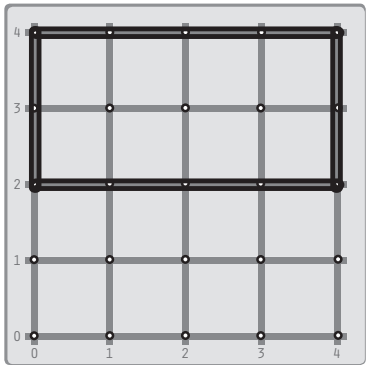
Name _____

Challenge! What is the shape in Problem 6? Write a sentence for the perimeter of the shape in Problem 6 that is different from your answer on the previous page. Explain why both sentences work.

Name _____

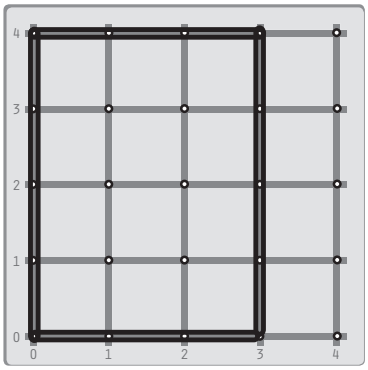
Use a Geoboard and rubber bands. Make each rectangle. Find the perimeter of the rectangle.

1.



_____ units

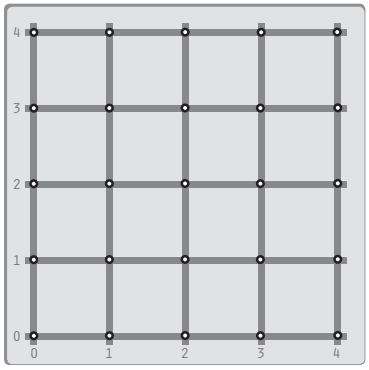
2.



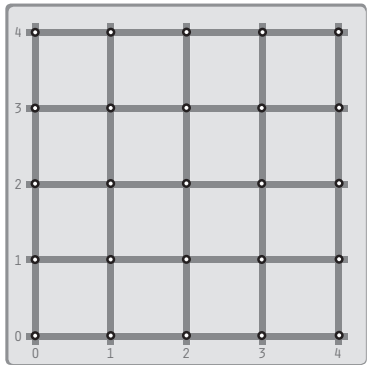
_____ units

Use a Geoboard and rubber bands. Make a rectangle with the given perimeter. Draw the rectangle.

3. 8 units



4. 14 units



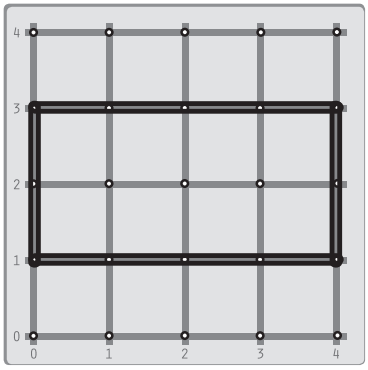
Name _____

Challenge! What number sentence do you use to find the perimeter of a rectangle that is 3 units long and 1 unit wide? Draw a picture.

Name _____

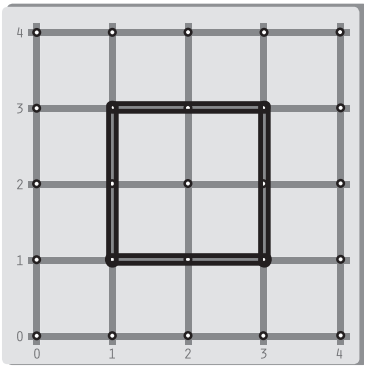
Use a Geoboard to model each shape. Find the perimeter of the shape.

1.



_____ units

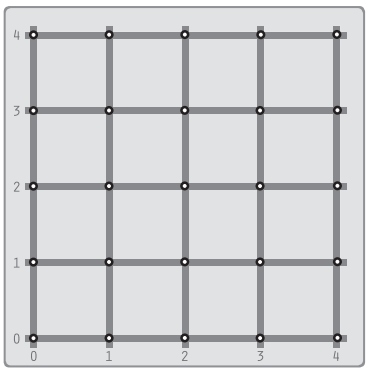
2.



_____ units

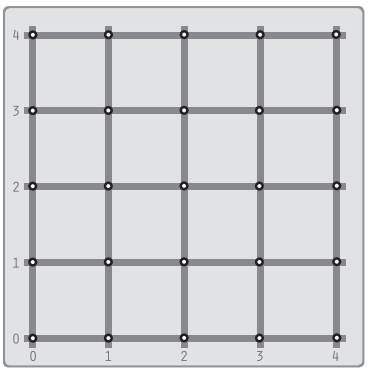
Using a Geoboard, model a shape with the given dimensions. Sketch the shape. Find the perimeter of the shape.

3. 4 units by 3 units



_____ units

4. 3 units by 3 units



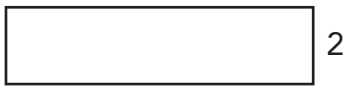
_____ units

Find the perimeter of each rectangle given the dimensions.

5.

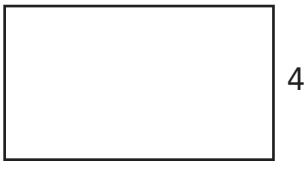
_____units

6.



_____units

7.



_____ units

8.

_____units

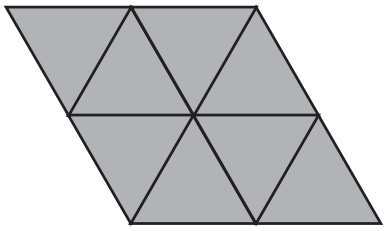
Name _____

Challenge! Write an addition sentence that you could use to find the perimeter in Problem 5. Draw a picture to help. Explain each of the addends.

Name _____

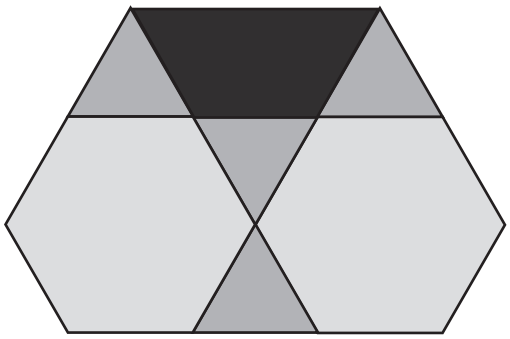
Use Pattern Blocks to build each model. One side of a green triangle equals 1 unit. Find the perimeter of each shape.

1.



_____ units

2.

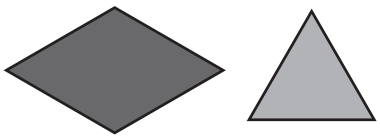


_____ units

Using Pattern Blocks, model a shape with the given perimeter. Use as many of the two blocks given as you need. Sketch the shape below.

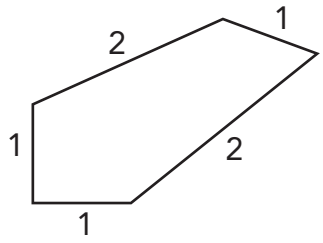
3. 8 units

4. 18 units



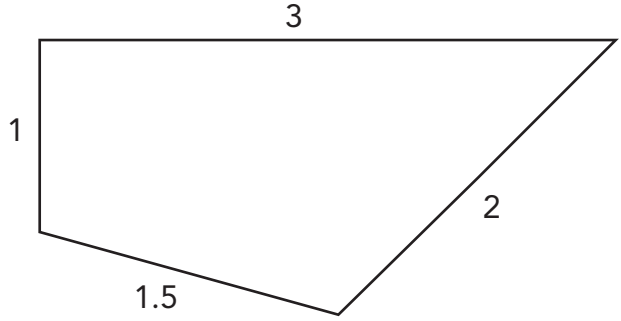
Find the perimeter of each shape.

5.



_____ units

6.



_____ units

Name _____

Challenge! Write directions for how to find the perimeter of a figure when you do not have a Geoboard.