Name _____

In the Blink of an Eye

E 5-1
PATTERNS

1. You take about 4,000 steps in 12 hr. About how many steps do you take in 8 days? Fill in the table. Look for a pattern.

Time	12 hr	24 hr	2 days	4 days	8 days
Number of Steps					

2. About how many steps do you take in a 30-day month? Explain how you found your answer.

_____

_____

3. You breathe about 10 times every 30 sec. About how many times do you breathe in 10 hr? Fill in the table. Look for a pattern.

Time	30 sec	1 min	10 min	1 hr	10 hr
Number of Breaths					

4. About how many times do you breathe in a day? Explain how you found your answer.

_____

_____

5. Your eyes blink about 150 times in 10 min. About how many times do you blink in 3 min? Fill in the table. Look for a pattern.

Time	10 min	5 min	4 min	3 min	2 min	1 min
Number of Blinks						

6. About how many times do your eyes blink every 30 sec? Explain how the table you made can help you find the answer.

_____

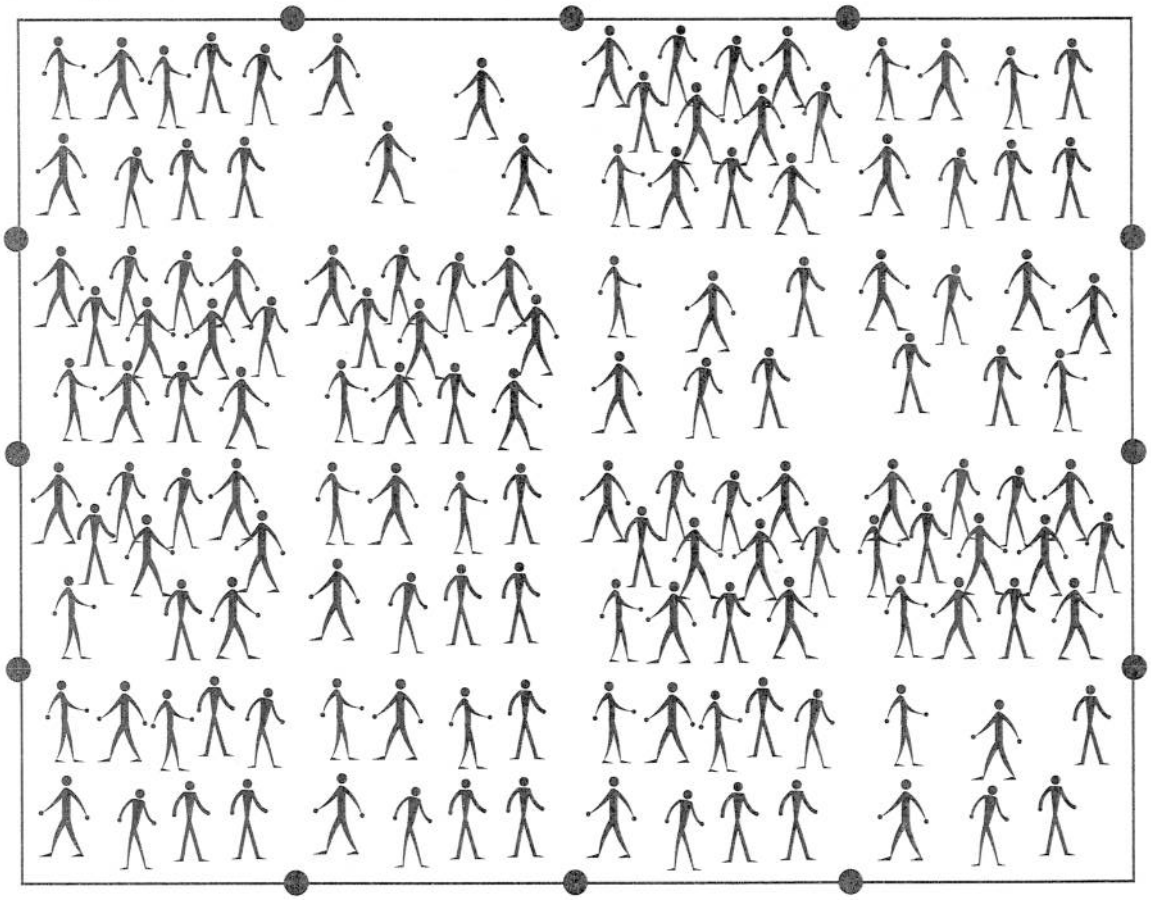
_____

Name _____

Who's Here?

E 5-2
ESTIMATION

Do you know how to find the attendance of people at a large event? It is too many people to count one-by-one, so you need to use an estimate. This is called crowd estimation.



1. Draw 3 lines going up and down. Connect dot to dot. Draw 3 lines going across. Connect dot to dot. Find the box that is farthest left and on the bottom. Count as many people in the box as you can. _____

2. Count the total number of boxes. _____

3. Estimate to find the total number of people.

   number of people × number of boxes = total number of people

   _____ × _____ = _____

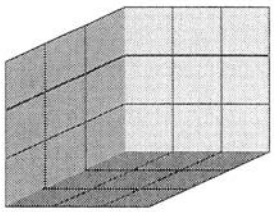
Name _____

Block Party

E 5-3
VISUAL THINKING

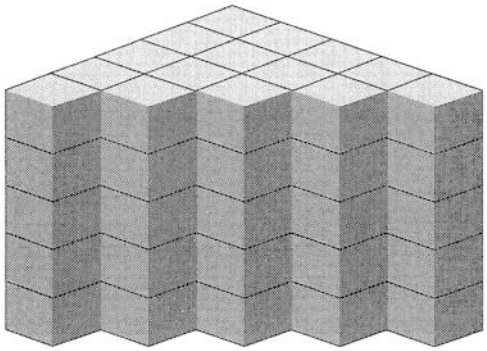
Find the pattern of blocks in each structure. Then write the total number of blocks.

1. There are 3 levels.



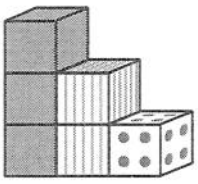
Total number of blocks: _____

2. There are 5 levels.



Total number of blocks: _____

3. Copy the pattern of 3 shaded blocks, 2 spotted blocks, and 1 striped block. Repeat this pattern to draw a side view of a staircase with 12 shaded blocks, 8 striped blocks, and 4 spotted blocks.

Pattern: 

Name _____

Thanks a Bunch

E 5-4
DECISION MAKING

It is time for you to bring the vegetables from your garden to a farmer's market. Your stand can only hold 500 lb. The vegetables have already been packaged in bunches or groups. Decide what you want to bring and how much money you want to earn. Fill in the Farmer's Market Tally Sheet to keep track of all your choices, weights, and money.

Farmer's Market Vegetables

Vegetable	Weight per Package	Packages Available	Price per Package
Broccoli	3 lb	20	$5
Carrots	2 lb	32	$6
Cucumbers	6 lb	19	$7
Lettuce	1 lb	72	$2
Peppers	5 lb	53	$7
Tomatoes	4 lb	41	$5

Farmer's Market Tally Sheet

Vegetable	Number of Packages	Weight of Packages	$ Amount of Packages

Total weight: _____ Total $ amount: _____

1. What was the total weight of all the produce you brought to the market?

_____

_____

Name _____

Mathematical Marlena

E 5-5
NUMBER SENSE

Marlena is about to amaze you with great feats of mathematics.
Marlena says, "I want you to write the number 37 three times."

1. Now she says, "Multiply the first 37 by 1." _____
2. Then she tells you, "Multiply the second 37 by 2." _____
3. She directs you to, "Multiply the third 37 by 3." _____
4. She says, "Take each product and multiply it by 3."

   _____

   _____

5. Marlena now asks, "What is the pattern through the number 9?"

   _____

   _____

Then Marlena begins her second math game.

6. She tells you, "Write a number between 1 and 5." _____
7. Then she says, "Now add 5 to the number." _____
8. Now she says, "Multiply the number by 2." _____
9. She says, "Subtract 2 from the product." _____
10. Marlena then says, "Now multiply that answer by 2." _____
11. Then she asks you to, "Divide the product by 4." _____
12. She finally directs you to, "Subtract 4 from your answer." _____

Marlena says, "The answer is the number you wrote down!"

Name _____

Roll Out the Fun

E 5-6
NUMBER SENSE

Find the missing factors and products to complete the number sentences. Then complete the sentences in the word problems.

Zippy Roller Coaster
Height: 83 ft
Length: 903 ft

Souvenirs
Baseball cap—157 tickets
T-shirt—279 tickets
Stuffed animal—318 tickets

1. $109 \times 2 =$ _____ $139 \times 2 =$ _____

Neil's family and Reena's family spent two days at the amusement park. On Fridays, family passes cost $109. On Saturdays, family passes cost $139. Altogether, the two

families spent _____ on Friday and _____ on Saturday.

2. _____ $\times 9 =$ _____ $83 \times$ _____ $=$ _____

The world's longest roller coaster is 9 times the length of the Zippy roller coaster. The world's highest roller coaster is about 5 times the height of the Zippy roller coaster. The

world's longest roller coaster is _____ ft long. The

world's highest roller coaster is _____ ft high.

3. $157 \times$ _____ $=$ _____ _____ $\times 2 =$ _____

Before leaving the amusement park, Reena went to the souvenir store. She got 1 baseball cap for each of her 3 friends. Then she bought herself 2 stuffed animals. Reena

used _____ tickets to get gifts for her friends and

_____ tickets to get the stuffed animals.

Name _____

Make a Guess

E 5-7
REASONING

First, guess the number of digits that will be in each product. Then, solve the problem and write the actual number of digits. Finally, explain why your guess might have been different from the actual number.

1. 54
× 7

Guess: There are _____ digits.

Actual: There are _____ digits.

Explanation: _____

_____

_____

2. 236
× 5

Guess: There are _____ digits.

Actual: There are _____ digits.

Explanation: _____

_____

_____

_____

3. 5,000
× 9

Guess: There are _____ digits.

Actual: There are _____ digits.

Explanation: _____

_____

_____

_____

Name _____

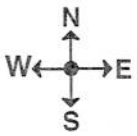
Clue Me In

E 5-8
REASONING

"It is what you have in common with about 10 million other people."

To solve the riddle, you must follow all of the clues. Use the map to discover where each clue takes you.

					A		Y
D							
			T				
						I	
		R					
				H			
★							
			B				



1. **Clue 1:** From the star, go 3 blocks east and 1 block south. _____

2. **Clue 2:** Go 4 blocks east, 4 blocks north, and 1 block west. _____

3. **Clue 3:** Go west 4 blocks and then south 1 block. _____

4. **Clue 4:** Go north 2 blocks and then 1 block east. _____

5. **Clue 5:** Go 1 block east and then three blocks south. _____

6. **Clue 6:** Go 4 blocks west and then go 4 blocks north. _____

7. **Clue 7:** Go 5 blocks east and 1 block north. _____

8. **Clue 8:** Go 2 blocks east. _____

9. Place the letters in the order of the clues to solve the riddle.

_____

Name_____

It All Makes Cents

E 5-9
DATA

A nine-year-old earns an average of $7.00 each week in allowance.

	1 month		6 months		12 months	
Country	**Saves**	**Spends**	**Saves**	**Spends**	**Saves**	**Spends**
China	$18.20	$12.13				
France	$9.10	$21.23				
Germany	$13.95	$16.38				
Japan	$18.80	$11.53				
United Kingdom	$7.89	$22.45				
United States	$6.37	$23.96				

1. Find out how much allowance a 9-year-old from each country saves and spends in 6 months and 12 months. Write your answers in the chart.

2. Round each savings and spending to the nearest tens place for 12 months.

12 Months

Country	Saves	Spends
China		
France		
Germany		
Japan		
United Kingdom		
United States		

Use your estimated totals to answer the questions.

3. In which country do children spend 3 times more allowance than they save?

_____

4. In which country does a child save 2 times more allowance than a child from France?

_____

Name _____

Building Factors

E 5-10
NUMBER SENSE

Multiply to solve each problem.

Luisa lives in an apartment building. The building has 3 floors. On each floor lives a family of 5. The 1st floor has a family with 2 parents and 3 children. The 2nd floor has 2 grandparents and 3 children. The 3rd floor has 1 parent and 1 grandmother and 3 children.

Each person in the building has 2 pairs of shoes.

1. How many pairs of shoes are in the building?

_____

_____

The adults on all 3 floors each have 3 books from the library.

2. How many books from the library are in the building?

_____

_____

The children on the 1st floor and the children on the 3rd floor each have 6 compact discs.

3. How many compact discs are in the building?

_____

_____

The adults on the 1st floor and the adults on the 2nd floor and 2 children on the 3rd floor each have 7 pairs of white socks.

4. How many pairs of white socks are in the building?

_____

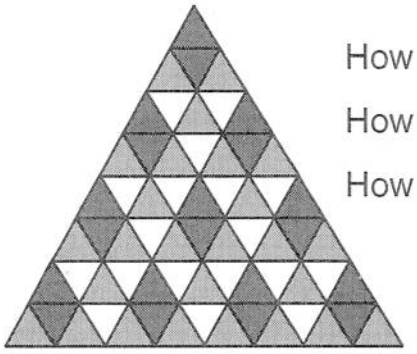
_____

Name _____

How Many Are There?

Use addition, subtraction, or multiplication to find the number of each shape in the patterns in the figures below. Then explain how you found your answers.

1.



How many ◆ are in the pattern? _____

How many △ are in the pattern? _____

How many ▽ are in the pattern? _____

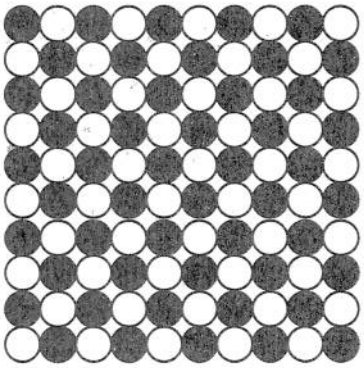
How did you find the number of each shape in the pattern?

_____

_____

_____

2.



How many ✧ are in the pattern? _____

How many ● are in the pattern? _____

How many ○ are in the pattern? _____

How did you find the number of each shape in the pattern?

_____

_____

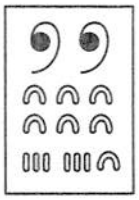
_____

Name _____

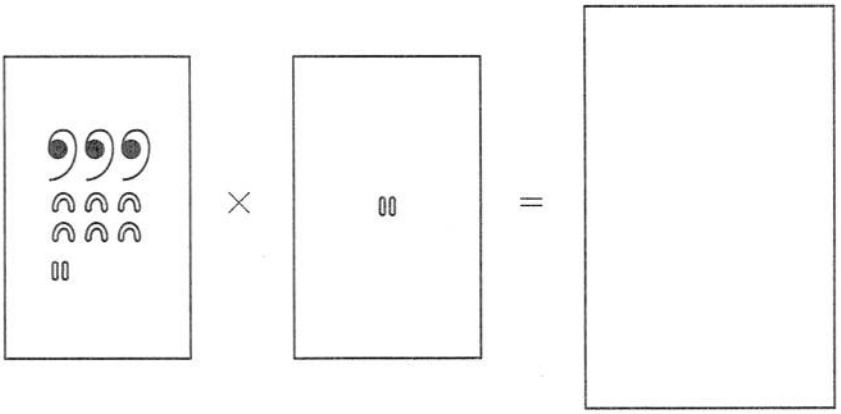
Math in Ancient History

E 5-12
VISUAL THINKING

The ancient Egyptians had a writing system based on hieroglyphs. Hieroglyphs are pictures that represent words or numbers. The Egyptians had separate place-value symbols for 1 unit, 1 ten, 1 hundred, and so on. Here is the number 276 written in hieroglyphs.



1. Decide which Egyptian place value symbols stand for 276. Use what you know to solve the multiplication sentence below, using hieroglyphs.



2. The ancient Egyptians used the symbol ✕ to stand for 1 thousand. Use what you have learned about ancient Egyptian symbols to solve the multiplication sentence below using hieroglyphs.