

Hawaii Volcanoes National Park

A Reading A-Z Level N Leveled Book
Word Count: 606

LEVELED BOOK • N

Hawaii Volcanoes National Park

Connections

Writing

Would you like to visit Hawaii Volcanoes National Park? Using information from the book, write a paragraph explaining why or why not.

Science

Draw a diagram or make a model of a volcano. Write a paragraph explaining how volcanoes form.

 Reading A-Z

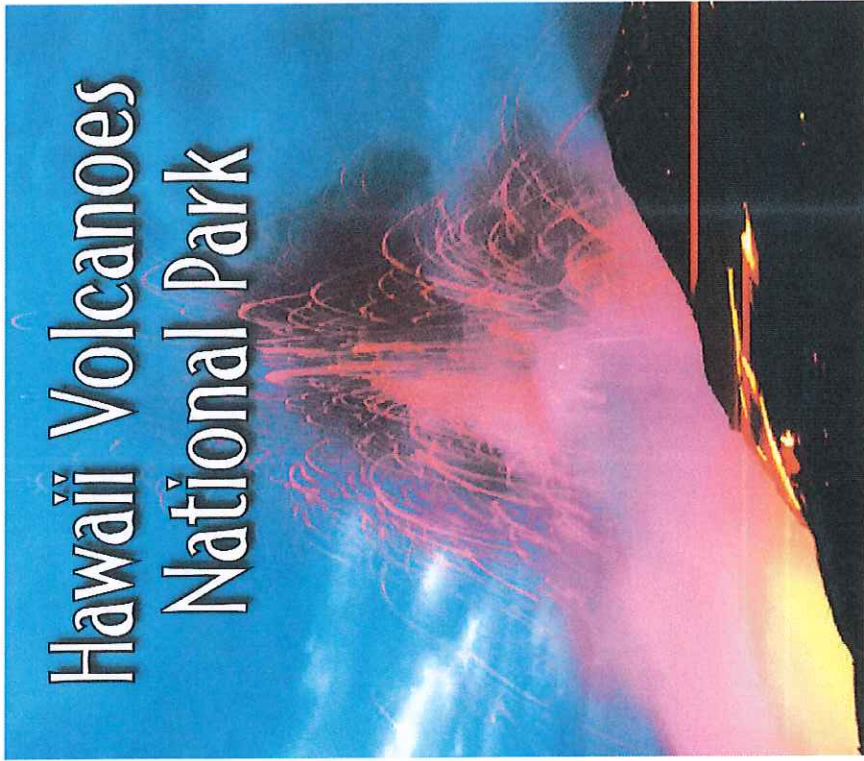
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**MULTI
LEVEL
H•K•N**



Written by Mike Stark

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Words to Know

active national park
 erupted native
 lava spewing

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Focus Question

What can you see at Hawaii Volcanoes National Park?

Correlation

LEVEL N	
Fountas & Pinnell	M
Reading Recovery	20
DRA	28

Hawaii Volcanoes National Park

Level N Leveled Book

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Kilauea and Mauna Loa are two famous volcanoes found in the park.

A Volcano Wonderland

Every day on the island of Hawaii, red-hot lava seeps from a volcano on the edge of the ocean. When the lava cools, it turns into solid rock and makes the island a little bigger. This volcano, called Kilauea (kee-luh-WAY-uh), is part of Hawaii Volcanoes National Park.

More than one million people visit Hawaii Volcanoes National Park each year. National parks are areas of special, protected land.

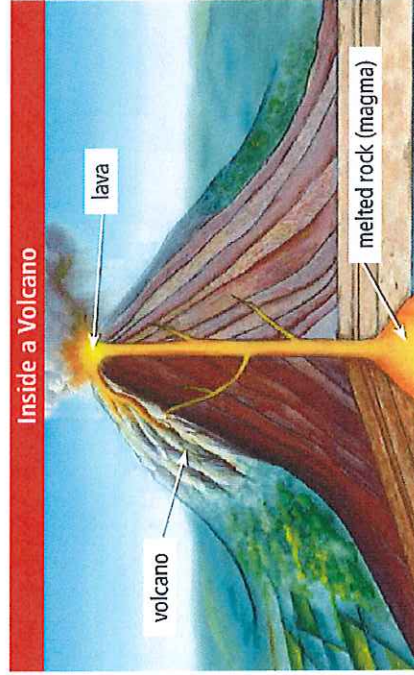
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Volcanoes Form a Park

A volcano begins when melted rock from deep inside Earth comes out through a crack in Earth's surface. When it reaches the surface, it cools into solid rock. The rock builds up over time. The rock may form a mountain or even an island. This is how the Hawaiian Islands formed.

Two of the world's most amazing volcanoes are found in Hawaii Volcanoes National Park.



One volcano is Kilauea, whose name means "spewing" in Hawaiian. It's one of the most active volcanoes in the world. Kilauea has been spewing out rivers of thick lava almost continuously since 1983.

Scientists think that Kilauea began forming between 300,000 and 600,000 years ago. They think it probably appeared as an island 50,000 to 100,000 years ago.



A river of lava flows from Kilauea.



Observers view a fiery lake on Kilauea in this 1924 painting.

In 1790, at least eighty people were killed when Kilauea erupted. Then, in 1924, more eruptions at Kilauea threw huge rocks around the area.

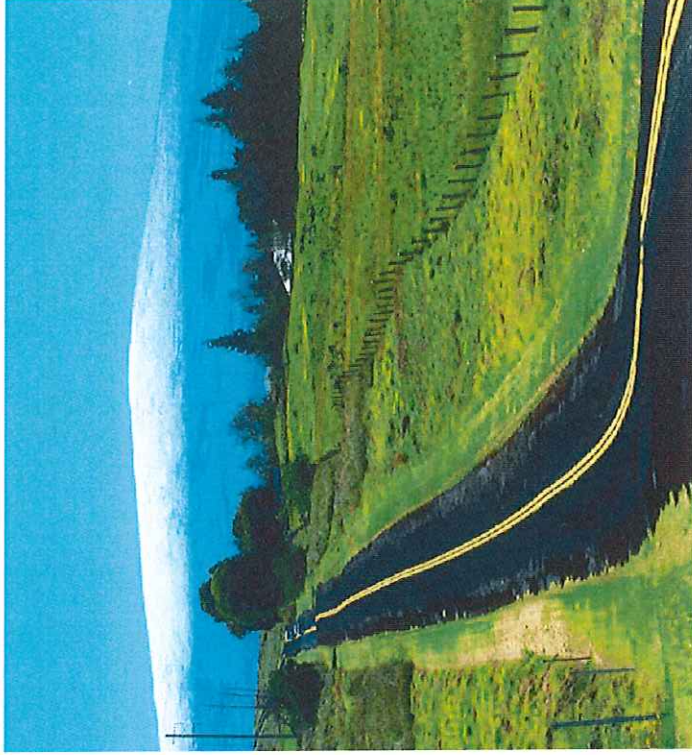
Some were as heavy as 8 tons (7,258 kg).



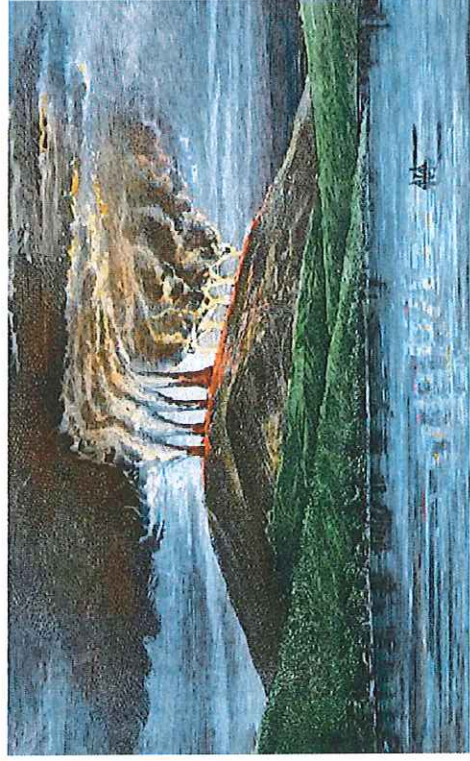
Leaping Lava

In 1959, Kilauea sent a stream of lava 1,900 feet (579 m) into the air—about twice the height of the Eiffel Tower!

Nearby is another volcano called Mauna Loa (MOU-nuh LOH-uh), whose name means “long mountain” in Hawaiian. It is one of the biggest mountains on Earth. From its base far beneath the ocean, Mauna Loa is more than 10 miles (16 km) high.



A snowcapped Mauna Loa, one of the largest volcanoes on Earth, is seen far away.



A picture from the 1870s shows the eruption of Mauna Loa as viewed from the ocean.

Mauna Loa formed in much the same way as Kilauea. It is giant, stretching nearly 75 miles (121 km) across and about 13,680 feet (4,170 m) above sea level. This volcano covers half the island of Hawaii.

Mauna Loa has erupted dozens of times since 1843. In 1868, an eruption caused earthquakes and lava flows that lasted four days and destroyed nearly forty buildings.



An active lava lake lies in the crater at the top of Kilauea.

An Amazing History

People have been visiting Kilauea and Mauna Loa for hundreds of years.

Early native people made offerings, or gifts, at the volcanoes. Visitors in the 1840s were amazed by the giant lake of lava.

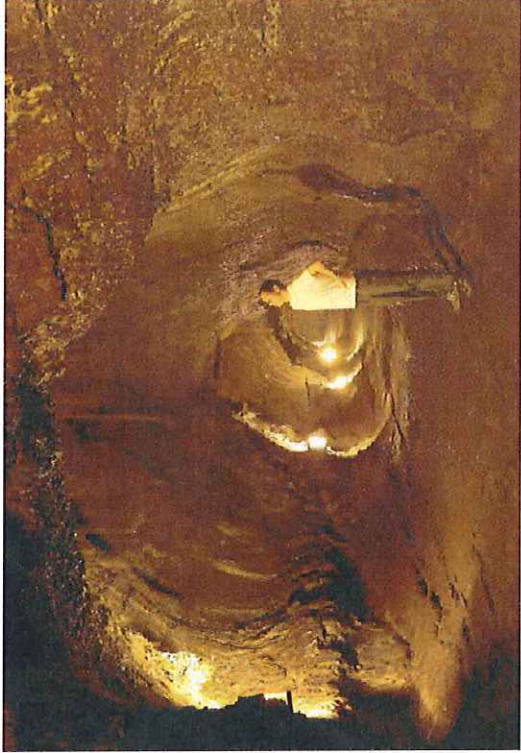
People wanted to protect both the volcanoes and the land around them. President Woodrow Wilson made the area the country's thirteenth national park on August 1, 1916.



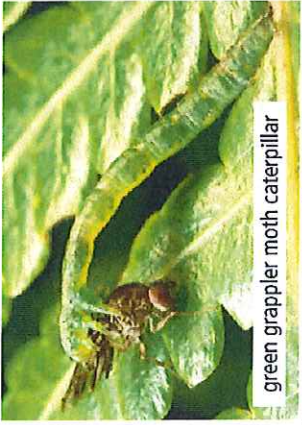
President Woodrow Wilson

Hawaii Volcanoes National Park covers 520 square miles (1,347 sq km). It extends from Mauna Loa to the coast. As well as volcanoes, it has lava tubes that run across the land and flow into the sea.

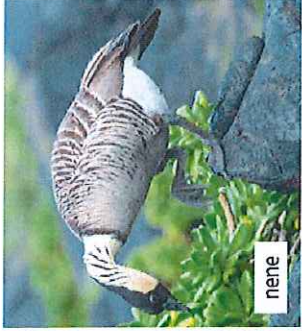
Lava tubes are big tunnels in the ground formed by lava long ago. They are so big that people can walk through them.



Visitors can walk through the Thurston Lava Tube in the park.



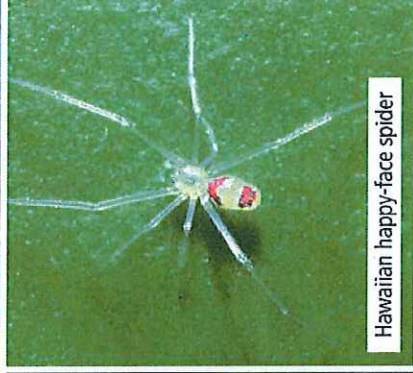
green grappler moth caterpillar



nene



apapane

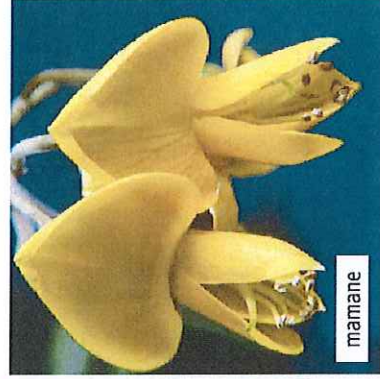


Hawaiian happy-face spider

The park also has many protected native plants and trees. Almost all the park's plants are found only in Hawaii. Many plants have lived in and around the volcanoes for years.



ohia lehua tree



mamane



fern



silversword

Wildlife at the Volcanoes' Edge

Having a volcano nearby doesn't keep animals from living there. In fact, hundreds of protected animals live in Hawaii Volcanoes National Park. It is home to sea turtles, bats, unusual insects, and over twenty types of songbirds.



Visitors can see the land change before their eyes at Hawaii Volcanoes National Park.

Enjoy—But Watch Your Step!

Hawaii Volcanoes National Park is a wonderful place to visit. Drive along a volcano or hike more than 150 miles (241 km) of trails. Bike along a volcano's paths or camp in the rainforest.

The volcanoes are continuously watched for eruptions. When lava flows or eruptions are possible, parts of the park are closed to visitors. This special place is never quiet for long.

Glossary

active (<i>adj.</i>)	in a state of activity (p. 6)
erupted (<i>v.</i>)	shot out rock, lava, and ash from an active volcano (p. 7)
lava (<i>n.</i>)	melted, liquid rock that flows from an opening in Earth's surface (p. 4)
national park (<i>n.</i>)	An area of land protected by the government for its history and natural beauty (p. 4)
native (<i>adj.</i>)	natural to an area (p. 10)
spewing (<i>v.</i>)	spitting out a large amount of something in a fast or forceful way (p. 6)



Instructions: Read each question carefully and choose the best answer.

1. Which of the following is the main idea of this book?
 - Ⓐ Hawaii Volcanoes National Park is located in Hawaii.
 - Ⓑ Hawaii Volcanoes National Park has been around for millions of years.
 - Ⓒ Hawaii Volcanoes National Park is a wonderful place to visit for many reasons.
 - Ⓓ Hawaii Volcanoes National Park became a government-protected park in 1916.

2. Which of the following is an opinion from this book?
 - Ⓐ Hundreds of the most interesting animals live in Hawaii Volcanoes National Park.
 - Ⓑ People have been visiting Kilauaea and Mauna Loa for hundreds of years.
 - Ⓒ Every day on the island of Hawaii, red-hot lava seeps from a volcano on the edge of the ocean.
 - Ⓓ Hawaii Volcanoes National Park is a wonderful place to visit.

3. Which detail from the text supports this statement: *People have been visiting Kilauaea and Mauna Loa for hundreds of years.*
 - Ⓐ *Early native people made offerings, or gifts, at the volcanoes.*
 - Ⓑ *President Woodrow Wilson made the area the country's thirteenth national park on August 1, 1916.*
 - Ⓒ *Mauna Loa has erupted dozens of times since 1843.*
 - Ⓓ *Scientists think that Kilauaea began forming between 300,000 and 600,000 years ago.*

4. How are Kilauaea and Mauna Loa different?
 - Ⓐ Kilauaea is bigger than Mauna Loa.
 - Ⓑ Kilauaea is more active than Mauna Loa.
 - Ⓒ Mauna Loa is more popular than Kilauaea.
 - Ⓓ Mauna Loa is older than Kilauaea.

Quick Check continued on following page

Quick Check continued on following page

Hawaii Volcanoes National Park

Quick Check (continued)



Name _____ Date _____

5. Read this sentence from the book: *Kilauea has been spewing out rivers of thick lava since 1983.* What does **spewing** mean?
- (A) stretching across
 - (B) building up
 - (C) spitting out
 - (D) cracking through
6. In what section of the book can the reader find information about the history of Hawaii Volcanoes National Park?
- (A) "An Amazing History"
 - (B) "Volcanoes Form a Park"
 - (C) "Wildlife at the Volcanoes' Edge"
 - (D) "Enjoy—But Watch Your Step!"

7. What was the author's main purpose for writing this book?
- (A) to persuade the reader to donate money to the park
 - (B) to inform the reader about what can be seen and done in the park
 - (C) to entertain the reader with adventure stories from the park
 - (D) to persuade the reader to help save the plants and animals in the park
8. Why do you think the author wrote: *This special place is never quiet for long.*
- (A) Volcano eruptions happen frequently.
 - (B) The animals are very noisy.
 - (C) Nearby waves crashing cause a loud noise.
 - (D) There are many visitors in the park each day.

9. What activity would people most likely do at Hawaii Volcanoes National Park?
- Ⓐ horseback riding
 - Ⓑ camping
 - Ⓒ swimming
 - Ⓓ fishing
10. Which words in the book help readers understand what **erupted** means?
- Ⓐ lava cooled and turned to solid
 - Ⓑ caused earthquakes and lava flows
 - Ⓒ rocks built up
 - Ⓓ parts of the park are closed to visitors
11. **Extended Response:** Why might someone want to visit Hawaii Volcanoes National Park?

Name _____

Date _____

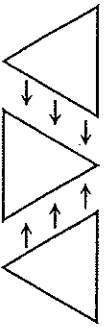
Quick Check (continued)

Hawaii Volcanoes National Park



LEVEL

1 Anthony will move 3 triangles together so their edges are touching.



What quadrilateral will he make?

- A Rhombus
- B Trapezoid
- C Parallelogram
- D Rectangle

6B

2 Mariah will carry 36 logs from a shed to a porch. She will carry 4 logs at one time. She wrote the equation below to show the number of trips she will make from the shed to the porch.

$$36 \div 4 = \square$$

Which number sentence can help Mariah find the number of trips?

- F $36 \div 6 = 6$
- G $2 \times 18 = 36$
- H $4 \times 9 = 36$
- J $36 - 4 = 32$

4J

4 Eric and Vito are playing a math game. When Eric says a number, Vito divides it by 3. Which table shows the possible results of Eric and Vito's game?

F

Eric	Vito
9	6
18	15
21	18

G

Eric	Vito
12	4
15	5
24	8

H

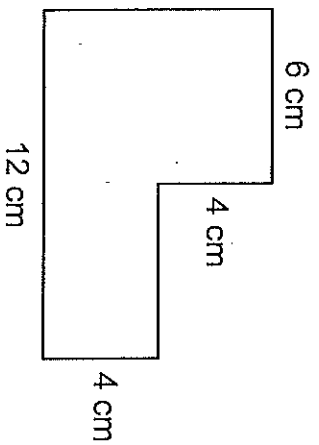
Eric	Vito
6	18
9	27
12	36

J

Eric	Vito
15	18
24	27
27	30

5E

5 Look at the hexagon below.

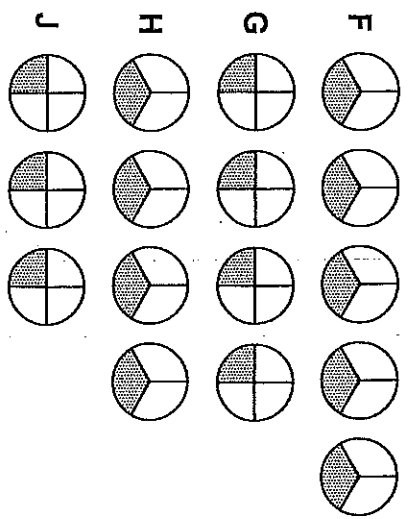


What is the area of the hexagon in square centimeters?

- A 40
- B 64
- C 26
- D 72

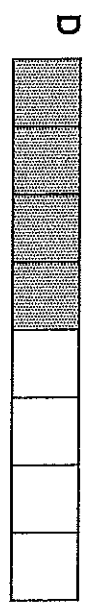
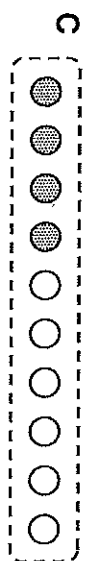
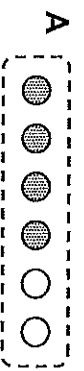
6D

6 Three sisters will share four cookies equally. The shaded part of which model represents each sister's share?



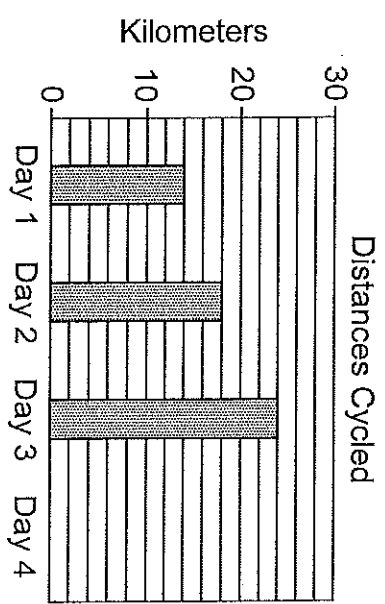
3E

3 Which model represents $\frac{4}{6}$

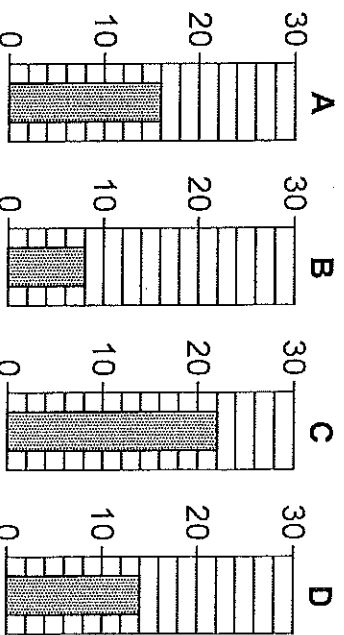


3A

7 Mr. Kahn is graphing the distances he cycled on 4 days. The bar for day 4 is missing.



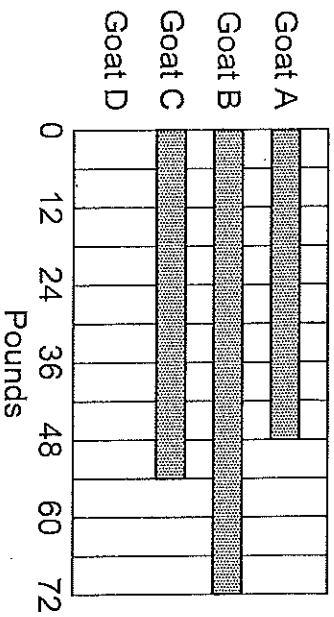
He cycled 64 kilometers in all. Which bar completes the graph?



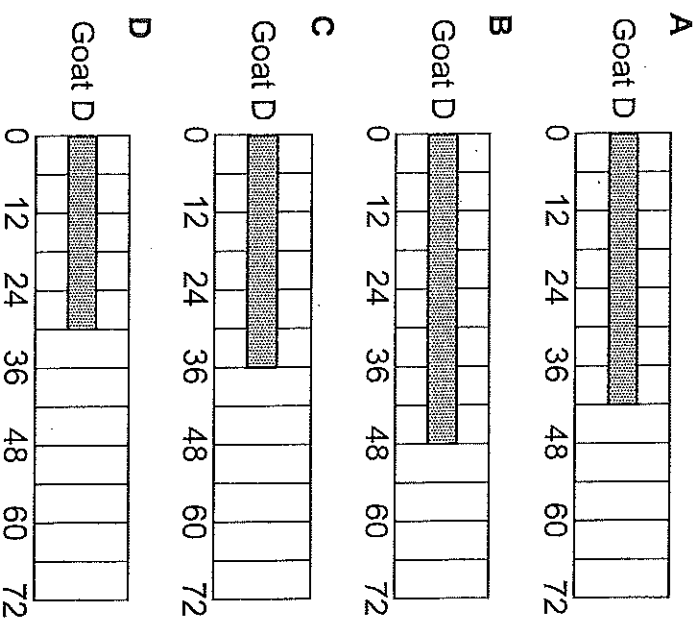
8A

1 Henry is graphing the weights of goats A, B, C, and D below. The graph is not yet complete.

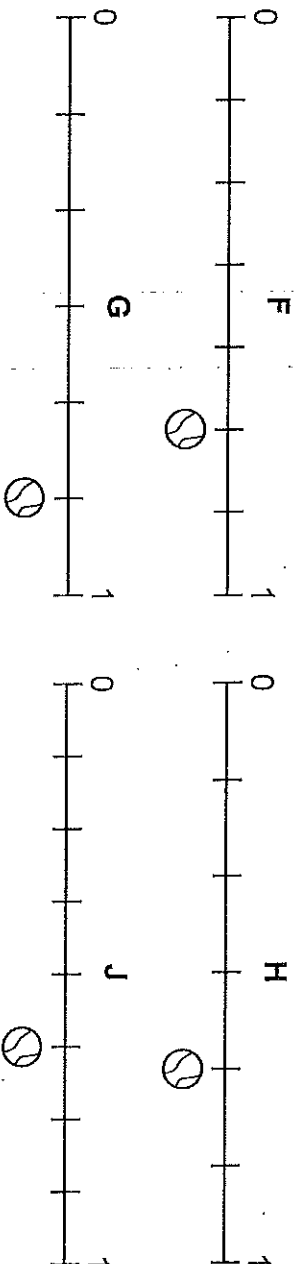
Weights of Goats



When Henry placed the four goats on the scale together, the scale indicated a weight of 216 pounds. Which bar completes Henry's graph?



2 Each number line represents a length of 1 meter. Which model shows a ball eightths of a meter away from zero?



3 The table shows how much three girls weighed at the start and the end of third grade.

	Start	End
Madison	49 lb	59 lb
Gracie	52 lb	63 lb
Jasmine	51 lb	59 lb

Combined, how many more pounds did the three girls weigh at the end of third grade than the start of third grade?

- A** 27 **B** 29 **C** 31 **D** 33

5 Mrs. D'Amato can buy basic cell phone service for \$59 each month or deluxe cell phone service for \$89 each month. If she buys deluxe cell phone service for 6 months, how much will she have to pay?

- A** \$354 **C** \$534
B \$484 **D** \$528

4 Rafael has a large bowl that contains pancake batter. With 4 ounces of batter he can make 2 pancakes. With 8 ounces of batter he can make 4 pancakes. With 12 ounces of batter he can make 6 pancakes. According to this relationship, how many pancakes can Rafael make with 32 ounces of batter?

<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 0
<input type="radio"/> 1	<input type="radio"/> 1	<input type="radio"/> 1
<input type="radio"/> 2	<input type="radio"/> 2	<input type="radio"/> 2
<input type="radio"/> 3	<input type="radio"/> 3	<input type="radio"/> 3
<input type="radio"/> 4	<input type="radio"/> 4	<input type="radio"/> 4
<input type="radio"/> 5	<input type="radio"/> 5	<input type="radio"/> 5
<input type="radio"/> 6	<input type="radio"/> 6	<input type="radio"/> 6
<input type="radio"/> 7	<input type="radio"/> 7	<input type="radio"/> 7
<input type="radio"/> 8	<input type="radio"/> 8	<input type="radio"/> 8
<input type="radio"/> 9	<input type="radio"/> 9	<input type="radio"/> 9

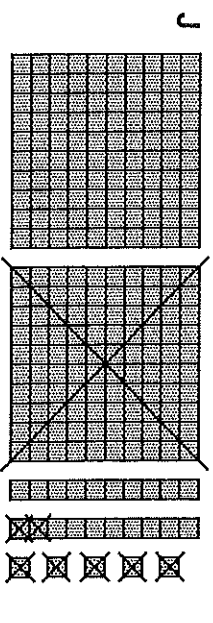
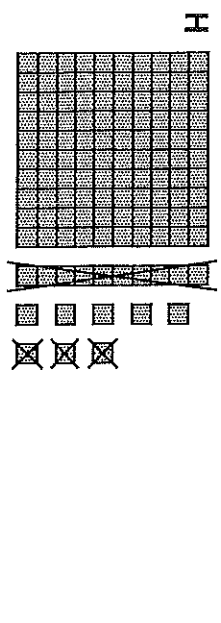
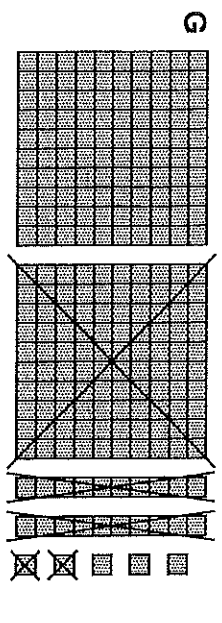
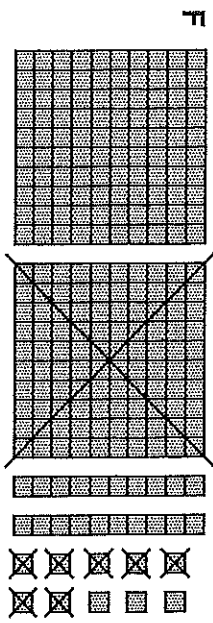
6 Eight students made 6 theater props for a play. The students used 48 pounds of wood and 4 pounds of nails. Each prop was made with an equal amount of wood. Which number sentence shows the number of pounds of wood that was used to make each prop?

- F** $48 \div 4 = 12$ **H** $48 \div 6 = 8$
G $4 \times 6 = 24$ **J** $4 \times 8 = 32$

- 1 Which represents 8,602?
- A $(8 \times 1,000) + (6 \times 1,000) + (2 \times 1,000)$
 - B $(8 \times 1,000) + (6 \times 100) + (2 \times 10)$
 - C $(8 \times 1,000) + (6 \times 10) + (2 \times 1)$
 - D $(8 \times 1,000) + (6 \times 100) + (2 \times 1)$

2A

4 Alicia's new book has 225 pages. She has read 107 pages. Which model represents the number of pages she needs to read to finish the book?

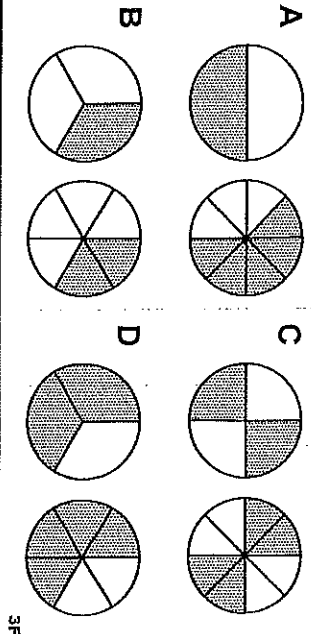


5A

- 2 After school today, Brody will read books for 38 minutes and magazines for 45 minutes. For how long will Brody read books and magazines after school today?
- F 1 hour 23 minutes
 - H 73 minutes
 - G 1 hour 33 minutes
 - J 85 minutes

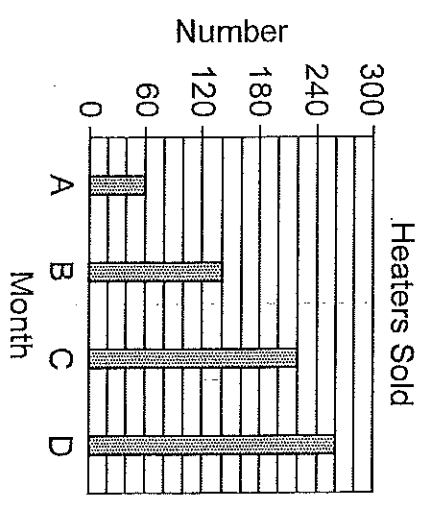
7C

5 Which diagram does NOT represent a pair of equivalent fractions?



3F

7 The graph below shows how many heaters Mr. Worman sold in 4 months last winter. Which table on the right represents the data on the graph?



A

Month A	60
Month B	121
Month C	182
Month D	241

C

Month A	60
Month B	140
Month C	220
Month D	260

B

Month A	60
Month B	130
Month C	200
Month D	250

D

Month A	60
Month B	135
Month C	210
Month D	255

4K

- 3 Which list of numbers is in order from least to greatest?
- A 34,954 • 35,875 • 35,647 • 35,728
 - B 34,687 • 35,124 • 35,216 • 35,220
 - C 34,265 • 34,485 • 35,103 • 34,687
 - D 34,396 • 33,487 • 33,540 • 33,624

2D

6 Francisco has a collection of 30 crystals. They are stored in 5 boxes, and each box contains the same number of crystals. He will buy 3 more crystals at a rock shop this weekend. If he places these crystals in the first box, how many crystals will it contain?

- F 6
- G 9
- H 7
- J 8