

# Third Grade Summer Packet

Name \_\_\_\_\_

Have a great summer!

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## **Coral Reef Rescue**

A lively community swims beneath the surface of the ocean. Bright fish float through colorful formations called coral reefs. "It's just a riot of movement and color," says Rod Salm. He is a scientist who studies ocean life.

Salm is working to protect the world's coral reefs. They are being hurt by pollution, overfishing, and other problems. Recently, researchers at a meeting on coral reefs sounded the alarm. They said that if nothing is done, more than half the world's coral could die within the next 25 years.

Some coral formations look like lifeless stone. But corals are made up of tiny living animals. They grow and divide to build the coral colonies. When corals die, their skeletons are left behind. New corals build on top. Some of the colonies are huge and hundreds of years old.

Changes in water temperature can be deadly for corals. Warmer ocean temperatures have caused coral bleaching. Corals lose their color and become sickly. Some die.

Scientists have discovered that some corals can recover from bleaching. The lessons they learn from these survivors could give coral reefs a bright future.

## Coral Reef Rescue *(cont.)*

**Directions:** Answer these questions. You may look at the article.

1. Why are coral reefs in danger?

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2. The article says that at their meeting, researchers “sounded the alarm” about the problem. What does that mean?

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3. What do scientists think will happen to the world’s coral if it is not protected?

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4. What happens when corals die?

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5. How does warmer water temperature affect coral reefs?

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6. Why do you think we should care about coral reefs and whether they have a future? Explain your answer.

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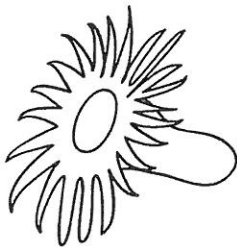
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# Coral Reef Rescue (cont.)

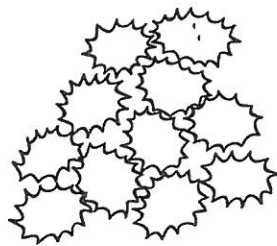
**Directions:** Look at the pictures and read the descriptions. Answer the questions.

## How Are Coral Reefs Formed?



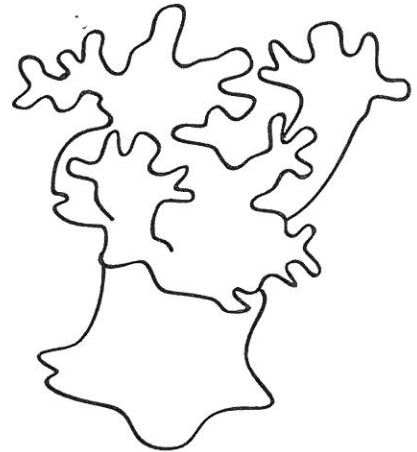
### Coral Polyp

Reefs are formed by coral colonies of tiny animals called *coral polyps*. Each polyp is a tiny, worm-shaped animal that secretes a material called *calcium carbonate*.



### Coral Colony

The carbonate hardens into a lime cup around the polyp's soft body. The hard material forms over many years by millions of polyps to make a coral colony.



### Coral Reef

Coral colonies and other organisms build the coral reef.

1. What is a coral polyp?

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2. How do the polyps turn into a coral colony?

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3. What do you imagine you might find in a coral reef? Use details to explain your answer.

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## Farm-Fresh Science

What do kids say after attending Veggie U? "More veggies, please!" The science program is popping up in fourth-grade classrooms across the nation. For five weeks, students learn about vegetables and nutrition. They also grow and eat their own veggies, such as squash and lettuce.

"Once the kids plant the seeds and watch them grow, they start to look at veggies differently," says Barbara Jones. She is the director of Veggie U.

Barbara and her husband, Bob, started Veggie U. They want to encourage kids to eat healthfully. The Jones' farm in Milan, Ohio, gives teachers the tools to get growing. The kit comes with seeds, soil, grow lights, and earthworms. The Jones also send fresh vegetables, including blue potatoes and purple carrots. "A lot of students think vegetables aren't cool," says Sam Browning, a teacher in Sandusky, Ohio. "But they're excited to try the ones from the Jones' farm."

Courtney Russell is one of Browning's students. She admits the blue potato made her a little nervous. But Veggie U has helped her to eat better. "Now when I have a snack, I'd rather have veggies," she says.

## Farm-Fresh Science *(cont.)*


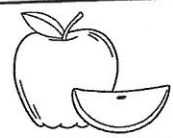
**Directions:** Answer these questions. You may look at the article.

1. What do you think the "U" in Veggie U is supposed to stand for?  
\_\_\_\_\_  
\_\_\_\_\_
2. What does the program teach kids?  
\_\_\_\_\_  
\_\_\_\_\_
3. Name three things that kids in the program get to do.  
\_\_\_\_\_  
\_\_\_\_\_
4. Who started the program?  
\_\_\_\_\_  
\_\_\_\_\_
5. Why do you think the Jones' care enough to start a program like this?  
\_\_\_\_\_  
\_\_\_\_\_
6. How are the vegetables they send different from regular vegetables? Why do you think they send these unusual-looking vegetables?  
\_\_\_\_\_  
\_\_\_\_\_
7. Would you try a fruit or vegetable that was not its "normal" color? Why or why not?  
\_\_\_\_\_  
\_\_\_\_\_

## Farm-Fresh Science *(cont.)*

Directions: Look at the chart. Answer the questions.

### What Part of the Plant Are We Eating, Anyway?

| FRUITS  |              | LEAVES           | ROOTS           | SEED PODS   |
|---|--------------|------------------|-----------------|---|
| apples  | lemons       | basil            | beets           | chili peppers   |
| apricots  | mangos       | brussels sprouts | carrots         | green beans   |
| avocados  | oranges      | beet greens      | onions          | okra  |
| bananas   | papayas      | cabbage          | parsnips        | snap pea pods   |
| blueberries   | peaches      | chard            | radishes        | wax beans   |
| cantaloupe  | pears        | cilantro         | rutabagas       |  |
| cherries  | pineapple    | endive           | sweet potatoes  |   |
| cranberries   | plums        | kale             | turnips         |   |
| cucumbers   | raspberries  | lettuce          | SEEDS           | STEMS   |
| eggplant  | strawberries | spinach          | black beans     | asparagus   |
| grapes  | squash       | turnip greens    | corn            | celery  |
| kiwifruit   | tomatoes     | FLOWERS          | lima beans      | leeks   |
|  | TUBERS       | artichokes       | kidney beans    | green onions  |
|   | potatoes     | broccoli         | peas            | rhubarb   |
|   | yams         | cauliflower      | sunflower seeds |   |

1. Into how many categories can vegetables be split?

\_\_\_\_\_

2. Which vegetables are really flowers?

\_\_\_\_\_

3. Make a list of your top 10 favorites from this list.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Back in Orbit

Rockets roared as the space shuttle *Atlantis* lifted into the sky on September 9, 2006. *Atlantis* was headed for the International Space Station (ISS). The ISS is a giant space lab in the sky. Scientists from many countries work there.

The station was built in 1998. It is 220 miles above Earth. Its first permanent crew arrived in 2000. Since then, there have always been at least two astronauts on board.

*Atlantis's* mission was to build the first major addition to the ISS since late 2002. Work to build the station stopped in February 2003 so that scientists could find ways to make shuttle trips safer.

Now, it is back to business on the ISS. All six members of the *Atlantis* crew trained for four and a half years for this difficult mission. *Atlantis* astronauts took three space walks. Each walk lasted more than six hours. The team added giant solar panels to the ISS. The panels use the sun's energy to make power for the station. NASA is planning 14 shuttle flights to finish work on the ISS. When it is done, the space lab will be bigger than a five-bedroom house.

NASA plans to retire the shuttles in 2010. New spacecrafts are in the works. They may one day take United States astronauts to the moon, Mars, and maybe even beyond.

## Back in Orbit *(cont.)*

**Directions:** Answer these questions. You may look at the article.

1. What does ISS stand for?

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2. What is the fewest number of astronauts ever on board the ISS?

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3. What was *Atlantis's* mission?

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4. How many members are there on this shuttle crew?

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5. What did the astronauts do while they were at the ISS?

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6. What is NASA planning for the future of its shuttle program?

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7. What do you imagine it must be like to visit the ISS? Write what you think a trip there would be like. Use lots of details.

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## Back in Orbit *(cont.)*

**Directions:** Read the list. Answer the questions.

### Some Surprising Facts About the International Space Station

- The International Space Station (ISS) is the largest manned object ever sent into space—about the size of two Boeing 747s.
- Putting the ISS together will require 45 launches—36 from the United States and nine from Russia—and 1,705 hours of space walks.
- The ISS will be visible to more than 90 percent of the world's population.
- The Space Station circles the Earth every 90 minutes.
- The ISS astronauts exercise at least two hours every day because the human body tends to lose muscle and bone mass rapidly in space.
- About 100,000 people from 16 nations have worked on the ISS.
- The Space Station is the most expensive single object ever built.

1. Why do you think so much of the world's population is able to see the International Space Station?

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2. What was the most surprising fact to you? Why did you think that was so surprising?

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3. List three other things you would want to find out about the ISS. Where would you look for this information?

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## ***It's Asthma Season***

Jeremy Wirick has had many asthma attacks at school. Sometimes, he has to use a machine to catch his breath. Asthma is a disorder that makes breathing difficult. The American Lung Association says that about one out of 12 American kids has asthma.

Kids' asthma is often worse in September and October. "When kids get together in close spaces, they start passing viruses around," Dr. Norman Edelman said. Germs, fall allergies, and school stress can make a child's asthma worse. Asthma affects a person's airways. An asthma attack makes it hard for air to get to the lungs.

Schools can do a lot to help. School buildings should be free of dust, mold, and other things that can bring on an asthma attack. Kids with asthma should have a plan from a doctor so school staff members know what to do in an emergency.

Most states allow kids with asthma to carry inhalers of medicine that help them breathe. Jeremy keeps his inhaler in the school nurse's office. What is his advice for kids with asthma? Avoid activities that bring on asthma attacks, but still have fun. "If kids are playing in leaf piles," he says, "stick with the swings."



## It's Asthma Season *(cont.)*

**Directions:** Answer these questions. You may look at the article.

1. What is asthma?

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2. How many kids in the United States have the disease?

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3. What are three things that can make asthma worse for a kid?

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4. What happens during an asthma attack?

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5. What are some things that schools can do to help kids with asthma?

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6. What do some kids carry with them in case of an asthma attack?

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7. Why do you think Jeremy says that if kids are playing leaves, it's safer to "stick with the swings"?

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## It's Asthma Season *(cont.)*

**Directions:** Look at the list. Answer the questions.

### Asthma Capitals, 2007

There is no place free from asthma triggers. But some cities have risk factors that make them more challenging places to live than others. Atlanta, Georgia, was named the top "Asthma Capital" for 2007 in the annual ranking of the 100 most challenging places to live with asthma.

- |                               |                               |
|-------------------------------|-------------------------------|
| 1. Atlanta, Georgia           | 6. Grand Rapids, Michigan     |
| 2. Philadelphia, Pennsylvania | 7. Milwaukee, Wisconsin       |
| 3. Raleigh, North Carolina    | 8. Greensboro, North Carolina |
| 4. Knoxville, Tennessee       | 9. Scranton, Pennsylvania     |
| 5. Harrisburg, Pennsylvania   | 10. Little Rock, Arkansas     |

1. According to the list, what's the worst city to live in if you have asthma?

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2. Which state has the most cities on the Top 10 list for asthma risk factors?

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3. What kinds of information do you think researchers might use to decide which cities to put on this list?

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## Stay in the Game

Many kids start playing a sport for fun. They work hard to do their best. Too often, injuries can get in the way. Kids face special risks because their bones are still growing. Young athletes who train year-round face even more risks. Doing the same move over and over, such as throwing a ball, stresses a kid's body.

More than 3.5 million kids under age 15 are treated for sports injuries each year. Most are caused by collisions or falls. When young athletes reach middle school or high school, nearly half their injuries result from overusing muscles and joints. A joint is where two bones meet.

Little League baseball and softball have taken aim at overuse injuries. The league recently announced new rules. Until now, a player was allowed to pitch six innings per game. Under the new rules, pitchers ten and younger will stop after 75 pitches.

The best medicine may be having fun off the field. "We recommend that a young baseball thrower have two to three months off each year," says Dr. James Andrews. Taking a break could help you play your way to a safer season.

## Stay in the Game *(cont.)*

**Directions:** Answer these questions. You may look at the article.

1. How many kids under age 15 are treated for sports injuries annually?

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2. Why do you think so many injuries occur from overusing muscles and joints?

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3. What changes did Little League make in its pitching rules?

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4. Why do you think they made those changes?

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5. What do you think might happen to a pitcher who never gets a break?

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6. Name three other sports in which there may be a lot of injuries to young athletes.

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7. Do you think that some coaches push their young athletes to do too much? Should every youth sports group have rules like Little League to prevent injuries? Why or why not? Explain your answer.

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## Stay in the Game *(cont.)*

**Directions:** Look at the chart. Answer the questions.

### Top 10 Most Dangerous Sports

Many moms might worry about their kids getting hurt playing football. But a new study shows that playing basketball and riding bicycles sent more Americans to the emergency room in 2005:

| Sport                 | Number of People Treated at Hospitals |
|-----------------------|---------------------------------------|
| 1. basketball         | 512,213                               |
| 2. bicycling          | 485,669                               |
| 3. football           | 418,260                               |
| 4. soccer             | 174,686                               |
| 5. baseball           | 155,898                               |
| 6. skateboarding      | 112,544                               |
| 7. trampoline jumping | 108,029                               |
| 8. softball           | 106,884                               |
| 9. swimming/diving    | 82,354                                |
| 10. horseback riding  | 73,576                                |

1. What surprised you the most about this list?

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2. Which two sports had the closest number of injuries?

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3. Of these sports, which ones have you participated in? Describe a time you were hurt playing a sport or on a playground, even if you did not need to see a doctor. Use details to explain your answer.

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## Seeds of Hope

Every year, Africa's farms produce fewer and fewer crops. Many Africans do not have enough food to eat. Americans Bill and Melinda Gates say it is time to change that for good.

In 2006, the Gates Foundation announced it was teaming up with the Rockefeller Foundation to fight hunger in Africa. Together, the generous groups will spend \$150 million to help farmers on the continent of Africa.

The new program is called Alliance for a Green Revolution. It is a back-to-basics plan that will start with seeds. Already, African scientists are working to develop hardier crops. They have created new kinds of rice plants that grow well in Africa. The rice is resistant to weeds.

Africa's farmers are mainly women. Many of the scientists helping to create the new crops are also women. Margaret Karembu is a scientist in Kenya. She said that women are working to help their sisters in the villages. "We know what it means to have to harvest all day," she said.

The effects of planting hardier plants can already be felt. Children are expected to help in the field, but now they spend less time there. More kids are in school in the areas where the new rice is grown.

Better harvests will give farm families more crops to eat and to sell. It will take years for the new program to reach full bloom. But the seeds of hope have been planted.



## Seeds of Hope *(cont.)*

**Directions:** Answer these questions. You may look at the article.

1. Who are the people behind the Gates Foundation?

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2. How much are the groups spending to help farmers?

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3. What is the new program called?

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4. Why are scientists developing new kinds of plants?

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5. Why does it matter that many of the scientists working on the project are women?

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6. How will this new program affect African children who work on farms?

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7. How do you think this program will help the people of Africa?

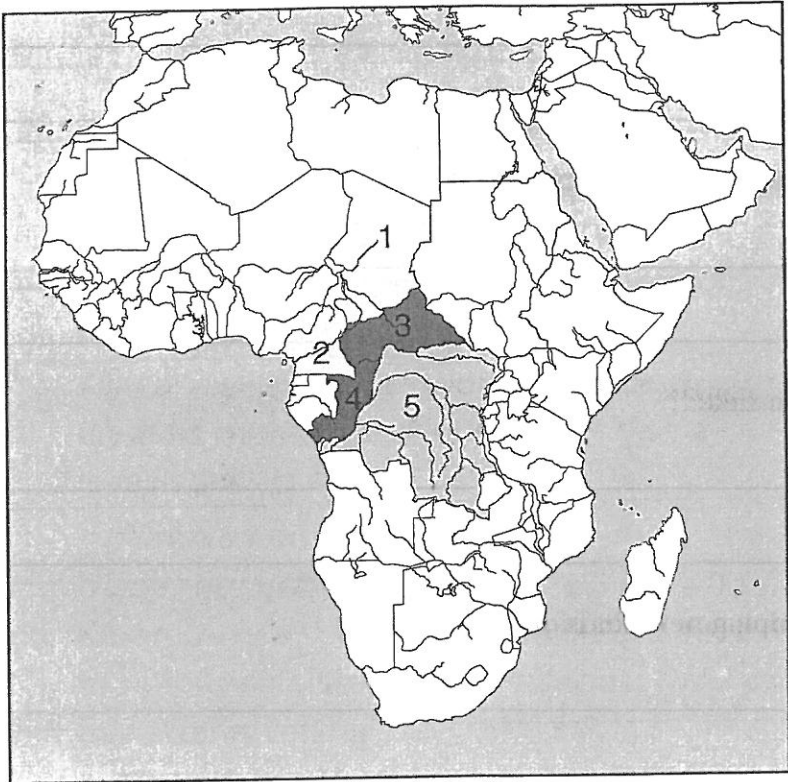
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# Seeds of Hope *(cont.)*

**Directions:** Look at the map. Answer the questions.

## Hunger Hot Spots in Central Africa



1. Chad
2. Cameroon
3. Central African Republic
4. Congo
5. Democratic Republic of Congo

|                                      |
|--------------------------------------|
| 20% to 34% population undernourished |
| 35% population undernourished        |

Total population: 81.7 million  
Undernourished population:  
47.6 million or 58%

1. Name the Central African countries where at least 35 percent of the population is undernourished.

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2. What percentage of the population of Central Africa is considered undernourished?

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3. What do you think the Alliance for a Green Revolution should do to help these countries?

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## Ta-Da! It's Time for Class

As class begins, students wave wands in the air. One boy makes a coin disappear. Another boy pulls a golf ball from an empty jar. A few students are juggling.

Have the teachers lost control? No! In fact, they are teaching the students to do more tricks. This is not an ordinary school. The College of Magic in Cape Town, South Africa teaches children age 10 and older how to do magic.

David Gore opened the College of Magic 26 years ago. He wanted to help local children. They seemed to need a little magic in their lives. Many of the students are poor. They live in small shacks and don't always have enough to eat. Gore said that magic "gives children the courage to dream."

Gore says magic offers kids new ways of thinking and solving problems. They learn to do things that seem impossible. They also learn that they have the ability to amaze others. "You're able to do things other people would love to do, but they can't," said magic student Hannah-Rose Smith.

Phumile Dyasi has been a student at the school since he was 10. Phumile has won magic contests. He would like to become a professional one day. This is something he never dreamed of before going to magic school. Phumile used to be very shy. But magic lessons have made his shyness vanish. "We make the impossible become possible," he said.

## Ta-Da! It's Time for Class *(cont.)*

**Directions:** Answer these questions. You may look at the article.

1. What does the school teach students how to do?

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2. Do you think this is a real college? Why or why not?

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3. Why did David Gore open the school?

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4. What challenges do the kids have at home?

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5. In what ways does learning magic help these kids?

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6. How do you think learning magic has made Phumile's shyness disappear? What does he mean when he says, "We make the impossible become possible"?

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## Ta-Da! It's Time for Class *(cont.)*

**Directions:** Look at the class schedule. Answer the questions.

| MAGIC SCHOOL SCHEDULE <span style="float: right;">★</span>  |  |
|---|--|
| <p style="text-align: center;"><b>Tools of the Trade</b></p> <p>Make magic using your wand and objects you can find around the house.</p> | <p style="text-align: center;"><b>Card-Trick Secrets</b> <span style="float: right;">★</span></p> <p>Learn all the tricks that magicians have up their sleeves. <span style="float: right;">★</span></p> |
| <b>9:00 A.M. to 10:30 A.M.</b>  | <b>2:15 P.M. to 3:00 P.M.</b>  |
| <p style="text-align: center;"><b>The History of Magic</b></p> <p>Learn about famous magicians.</p>                                       | <p style="text-align: center;"><b>The Art of Illusion</b></p> <p>Unlock the secret to making objects appear and vanish.</p>  |
| <b>11:00 A.M. to noon</b>   | <b>3:30 P.M. to 5:00 P.M.</b>  |



1. What time is the first class of the day?

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2. How long is the History of Magic class?

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3. What is the last class of the day? What will you learn in that class?

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4. Which of these classes would you like to take? Explain your choice.

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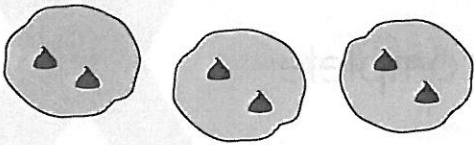


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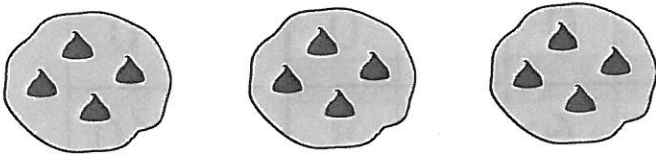
# Multiplying by 3



There are three cookies.  
Each cookie has two chocolate chips.  
How many chocolate chips in all?

**3 groups of 2 chocolate chips =  $3 \times 2 = 9$**

Multiply the problems below to find the total number of chocolate chips.



\_\_\_ groups of \_\_\_ chips

\_\_\_ x \_\_\_

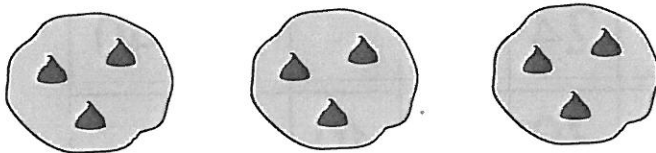
\_\_\_ total chips



\_\_\_ groups of \_\_\_ chips

\_\_\_ x \_\_\_

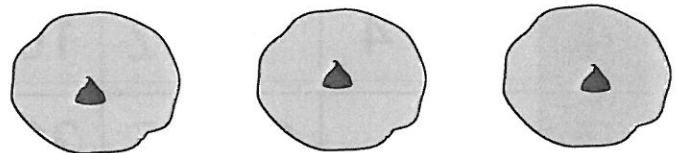
\_\_\_ total chips



\_\_\_ groups of \_\_\_ chips

\_\_\_ x \_\_\_

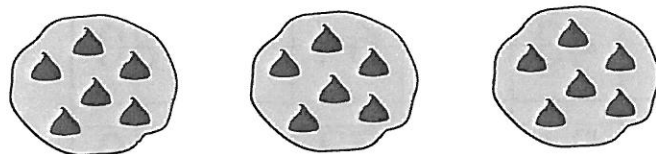
\_\_\_ total chips



\_\_\_ groups of \_\_\_ chips

\_\_\_ x \_\_\_

\_\_\_ total chips



\_\_\_ groups of \_\_\_ chips

\_\_\_ x \_\_\_

\_\_\_ total chips



\_\_\_ groups of \_\_\_ chips

\_\_\_ x \_\_\_

\_\_\_ total chips

# Multiply!


Help Alex the multiplication sign complete his multiplication table.




| x  | 0 | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10  |
|----|---|----|----|----|----|----|----|----|----|----|-----|
| 0  | 0 | 0  | 0  | 0  | 0  | 0  | 0  |    | 0  | 0  | 0   |
| 1  | 0 | 1  | 2  | 3  | 4  |    | 6  | 7  | 8  | 9  | 10  |
| 2  |   | 2  | 4  | 6  | 8  | 10 | 12 | 14 |    | 18 | 20  |
| 3  | 0 | 3  | 6  | 9  | 12 | 15 | 18 |    | 24 | 27 | 30  |
| 4  | 0 | 4  |    | 12 | 16 | 20 | 24 | 28 |    | 36 | 40  |
| 5  | 0 |    | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |     |
| 6  |   | 6  | 12 | 18 | 24 | 30 |    | 42 | 48 | 54 | 60  |
| 7  | 0 | 7  | 14 | 21 |    | 35 | 42 | 49 |    | 63 | 70  |
| 8  | 0 | 8  | 16 |    | 32 | 40 | 48 | 56 | 64 |    | 80  |
| 9  | 0 | 9  | 18 | 27 | 36 |    | 54 | 63 | 72 | 81 | 90  |
| 10 | 0 | 10 | 20 |    | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

# Multiplying by Ten


Find the product.


$$\begin{array}{r} 10 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 10 \\ \hline \end{array}$$



$$\begin{array}{r} 10 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$$



$$\begin{array}{r} 4 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$$


$$\begin{array}{r} 10 \\ \times 7 \\ \hline \end{array}$$


$$\begin{array}{r} 10 \\ \times 8 \\ \hline \end{array}$$



$$\begin{array}{r} 6 \\ \times 10 \\ \hline \end{array}$$


$$\begin{array}{r} 10 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 2 \\ \hline \end{array}$$


$$\begin{array}{r} 9 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 10 \\ \hline \end{array}$$

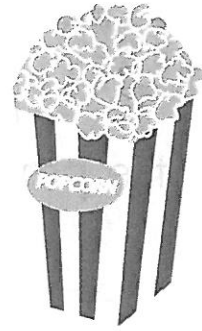

$$\begin{array}{r} 10 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 10 \\ \hline \end{array}$$


Fill in the multiplication chart.

| x  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|---|---|---|---|---|---|---|---|---|----|
| 10 |   |   |   |   |   |   |   |   |   |    |

# Movie Multiplication



Find the **product** using **regrouping**.  
Show your work!

$$\begin{array}{r} 49 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 76 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 33 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 69 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 84 \\ \times 2 \\ \hline \end{array}$$

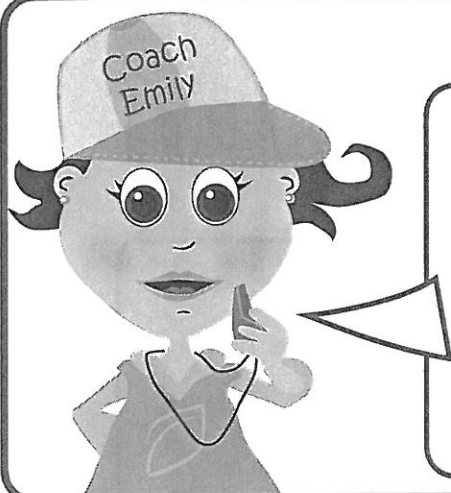
$$\begin{array}{r} 75 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 92 \\ \times 6 \\ \hline \end{array}$$







# Multiplication Boot Camp

Let's practice multiplication together! Follow the example below:

First multiply two times three.

$$\begin{array}{r} 13 \\ \times 2 \\ \hline 6 \end{array}$$

Then multiply two times one.

$$\begin{array}{r} 13 \\ \times 2 \\ \hline 26 \end{array}$$

Solve each problem below and write down your answers.

$$\begin{array}{r} 12 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 31 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 30 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 21 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ \times 2 \\ \hline \end{array}$$

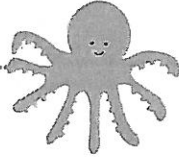


# Multiply It!

Solve each multiplication word problem. Show your work!

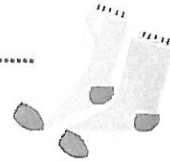
An octopus has 8 legs.  
Kyle counted 5 octopi in the tank.  
How many legs are there in the tank?

.....



Vera owns 17 pairs of socks.  
How many socks does she have  
in all?

.....



Eric owns 12 pairs of sunglasses.  
Alan owns 3 times more than Eric  
owns. How many pairs of  
sunglasses does Alan own?

.....



Peter Planter has 7 rows of  
pineapple plants with 8 plants in  
each row. How many pineapple  
plants does he have?

.....



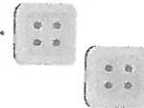
Uri and his family eat 2 loaves of  
bread a day. Each loaf has 6  
slices. How many slices of bread  
do Uri and his family  
eat in 4 days?

.....



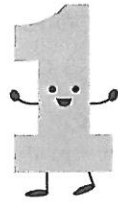
Yolanda makes 3 sweaters a day.  
She sews 6 buttons onto each  
sweater she makes. How many  
buttons will she sew in 3 days?

.....



# Numbers Party!

All of the numbers are off partying! It's up to you to complete each equation by writing the missing digit or digits in the box.



$3 \times \square = 6$

$\square \times 6 = 48$

$6 \times \square = 18$

$\square \times 4 = 8$

$\square \times 8 = 32$

$10 \times 1 = \square$

$4 \times \square = 20$

$5 \times 6 = \square$

$\square \times 2 = 14$

$6 \times \square = 0$

$9 \times \square = 27$

$7 \times 8 = \square$

$5 \times 5 = \square$

$\square \times 7 = 42$

$8 \times \square = 64$

$6 \times 9 = \square$

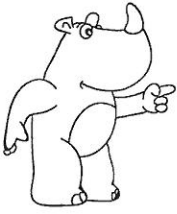
$7 \times \square = 28$

$\square \times 5 = 45$



# Multiplication with Regrouping

Multiplication with regrouping is the easiest way to multiply by large numbers.  
Follow the steps below to learn how.



- First, multiply the numbers in the ones place.
- Write your result in the ones place and carry any number in the tens place forward.
- Next, multiply the number in the tens place by the bottom number in the ones place.
- Add the extra number you carried over to your result and write this number in the tens place.

## Example:

|                          |   |                                |  |   |  |  |   |
|--------------------------|---|--------------------------------|--|---|--|--|---|
| Multiply the ones place. | $\begin{array}{r} 17 \\ \times 3 \\ \hline 1 \end{array}$ | Carry the 2 to the tens place. | $\begin{array}{r} 2 \\ 17 \\ \times 3 \\ \hline 1 \end{array}$ | Multiply the tens place by the bottom ones place. | $\begin{array}{r} 2 \\ 17 \\ \times 3 \\ \hline 1 \end{array}$ | Add the extra 2 and write your result. | $\begin{array}{r} 2 \\ 17 \\ \times 3 \\ \hline 51 \end{array}$ |
| $7 \times 3 = 21$        |   |                                | $1 \times 3 = 3$   |   |  | $3 + 2 = 5$                            |   |

For each problem below, follow the steps used in the example to find your solution.  
Be sure to show all of your work.

|  |  |  |   |   |   |
|--|--|--|---|---|---|
| 1) $\begin{array}{r} 24 \\ \times 3 \\ \hline \end{array}$ | 5) $\begin{array}{r} 13 \\ \times 4 \\ \hline \end{array}$ | 9) $\begin{array}{r} 12 \\ \times 5 \\ \hline \end{array}$ | 13) $\begin{array}{r} 19 \\ \times 3 \\ \hline \end{array}$ | 17) $\begin{array}{r} 14 \\ \times 4 \\ \hline \end{array}$ | 21) $\begin{array}{r} 15 \\ \times 6 \\ \hline \end{array}$ |
|--|--|--|---|---|---|

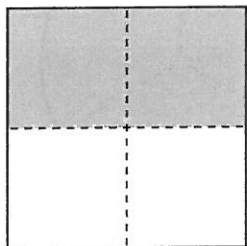
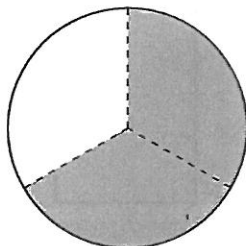
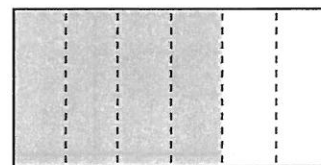
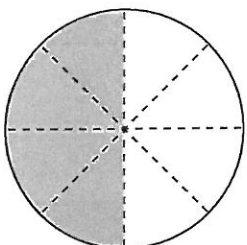
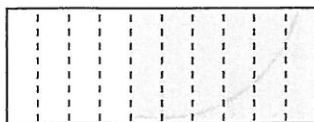
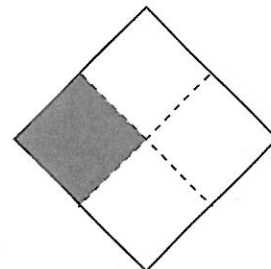
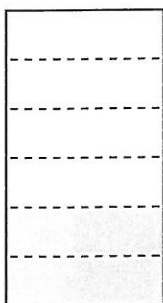
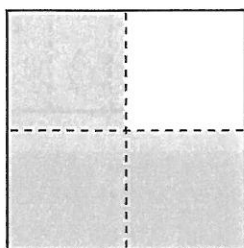
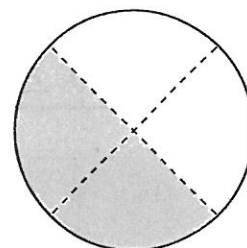
|  |  |   |   |   |   |
|--|--|---|---|---|---|
| 2) $\begin{array}{r} 16 \\ \times 4 \\ \hline \end{array}$ | 6) $\begin{array}{r} 38 \\ \times 2 \\ \hline \end{array}$ | 10) $\begin{array}{r} 29 \\ \times 3 \\ \hline \end{array}$ | 14) $\begin{array}{r} 24 \\ \times 4 \\ \hline \end{array}$ | 18) $\begin{array}{r} 28 \\ \times 4 \\ \hline \end{array}$ | 22) $\begin{array}{r} 17 \\ \times 3 \\ \hline \end{array}$ |
|--|--|---|---|---|---|

|  |  |   |   |   |   |
|--|--|---|---|---|---|
| 3) $\begin{array}{r} 16 \\ \times 2 \\ \hline \end{array}$ | 7) $\begin{array}{r} 35 \\ \times 2 \\ \hline \end{array}$ | 11) $\begin{array}{r} 18 \\ \times 4 \\ \hline \end{array}$ | 15) $\begin{array}{r} 27 \\ \times 2 \\ \hline \end{array}$ | 19) $\begin{array}{r} 13 \\ \times 7 \\ \hline \end{array}$ | 23) $\begin{array}{r} 12 \\ \times 7 \\ \hline \end{array}$ |
|--|--|---|---|---|---|

|  |  |   |   |   |   |
|--|--|---|---|---|---|
| 4) $\begin{array}{r} 25 \\ \times 2 \\ \hline \end{array}$ | 8) $\begin{array}{r} 17 \\ \times 4 \\ \hline \end{array}$ | 12) $\begin{array}{r} 36 \\ \times 2 \\ \hline \end{array}$ | 16) $\begin{array}{r} 18 \\ \times 3 \\ \hline \end{array}$ | 20) $\begin{array}{r} 24 \\ \times 3 \\ \hline \end{array}$ | 24) $\begin{array}{r} 72 \\ \times 9 \\ \hline \end{array}$ |
|--|--|---|---|---|---|

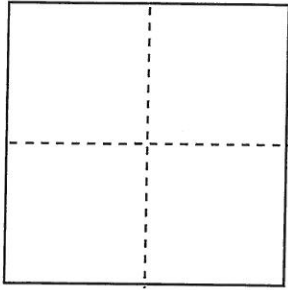
# Fun Fractions

What fraction of the shape has been colored?  
Write the fraction under the shape.

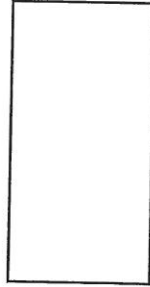

$$\frac{\square}{\square}$$

$$\frac{\square}{\square}$$

$$\frac{\square}{\square}$$

$$\frac{\square}{\square}$$

$$\frac{\square}{\square}$$

$$\frac{\square}{\square}$$

$$\frac{\square}{\square}$$

$$\frac{\square}{\square}$$

$$\frac{\square}{\square}$$

# Party Fractions

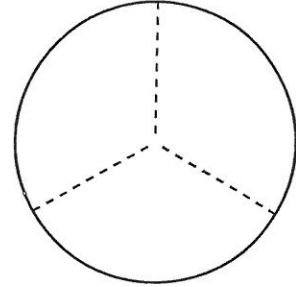
Color the shapes.



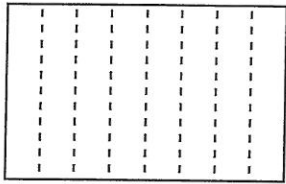
Color  $\frac{3}{4}$  of this square blue.



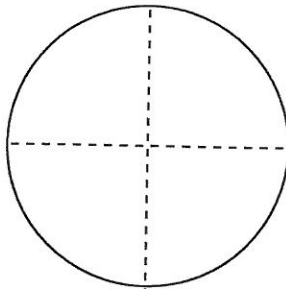
Color  $\frac{1}{2}$  of this rectangle purple.



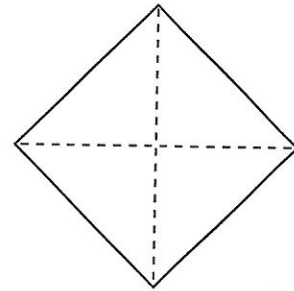
Color  $\frac{2}{3}$  of this circle orange.



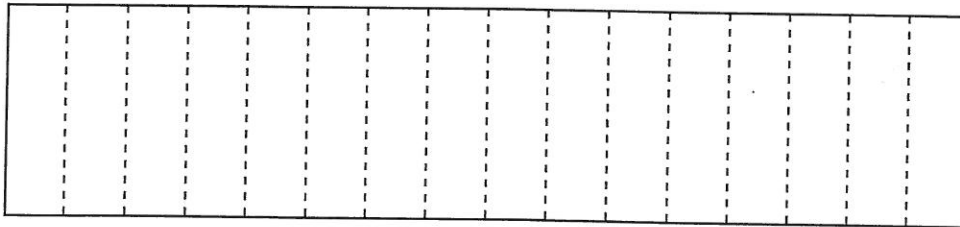
Color  $\frac{2}{8}$  of this rectangle green.



Color  $\frac{2}{4}$  of this circle yellow.



Color  $\frac{1}{4}$  of this diamond pink.



Color  $\frac{1}{16}$  of this rectangle orange.

Color  $\frac{4}{16}$  of this rectangle purple.

Color  $\frac{2}{16}$  of this rectangle green.

Color  $\frac{3}{16}$  of this rectangle blue.

Color  $\frac{5}{16}$  of this rectangle pink.

What fraction of the rectangle is left white?

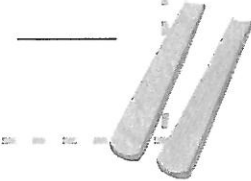
  



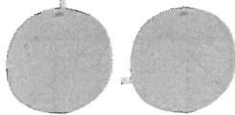
# Fraction Action

Answer each question.

Kiki ate  $\frac{1}{6}$  of the celery sticks. What fraction of the celery sticks is left for Carl to eat?



Fanny picked  $\frac{2}{5}$  of the oranges from the tree. What fraction of the oranges is left for Tina to pick?



Pam poured  $\frac{1}{4}$  cup of sugar into the cake mix. Her mom poured another  $\frac{1}{4}$  cup. How much sugar is in the cake mix?



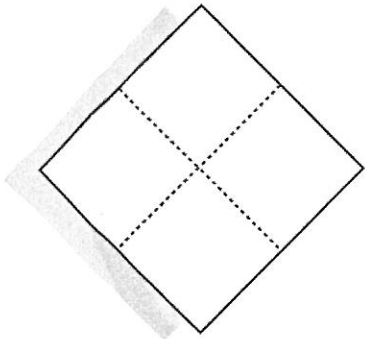
Gene ate  $\frac{2}{8}$  of the pizza pie. Tommy ate  $\frac{1}{8}$  of the pizza pie. What fraction of the pizza pie was eaten altogether?



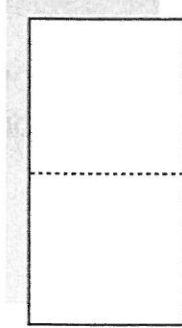
Jordan ate  $\frac{3}{9}$  of the crackers. Sam ate  $\frac{4}{9}$  of the crackers. What fraction of the crackers is left?



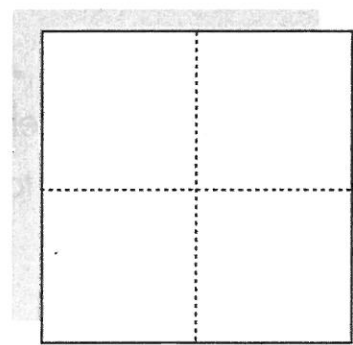
# Color The Shapes



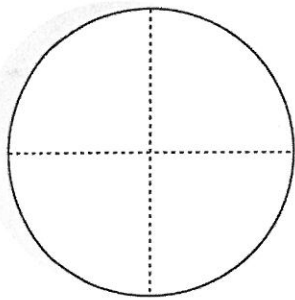
Color  $\frac{1}{4}$  of this diamond blue.



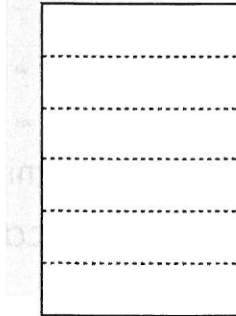
Color  $\frac{1}{2}$  of this rectangle orange.



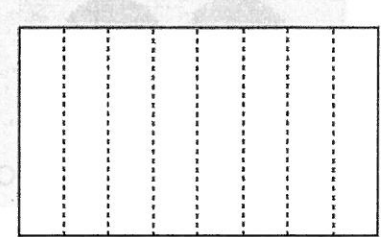
Color  $\frac{3}{4}$  of this square red.



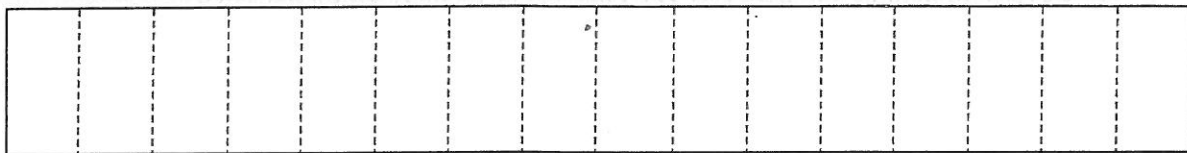
Color  $\frac{1}{2}$  of this circle pink.



Color  $\frac{4}{6}$  of this rectangle purple.



Color  $\frac{5}{8}$  of this rectangle green.



Color  $\frac{2}{16}$  of this rectangle green. • Color  $\frac{1}{16}$  of this rectangle orange.

Color  $\frac{5}{16}$  of this rectangle red. • Color  $\frac{4}{16}$  of this rectangle purple.

Color  $\frac{3}{16}$  of this rectangle blue. • What fraction of the rectangle is left white?

# Coconut Addition

Add the fractions.

To add fractions that have the same denominator, just add the numerators. The denominator stays the same.  $\frac{1}{2}$  — numerator  
— denominator

$$\frac{1}{3} + \frac{1}{3} = \underline{\quad}$$

$$\frac{4}{8} + \frac{3}{8} = \underline{\quad}$$

$$\frac{2}{4} + \frac{1}{4} = \underline{\quad}$$

$$\frac{2}{6} + \frac{2}{6} = \underline{\quad}$$

$$\frac{7}{12} + \frac{3}{12} = \underline{\quad}$$

$$\frac{2}{4} + \frac{1}{4} = \underline{\quad}$$

$$\frac{2}{10} + \frac{4}{10} = \underline{\quad}$$

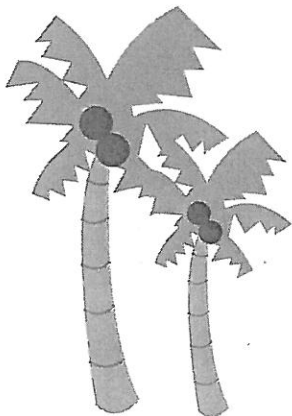
$$\frac{1}{5} + \frac{3}{5} = \underline{\quad}$$

$$\frac{3}{6} + \frac{2}{6} = \underline{\quad}$$

$$\frac{2}{8} + \frac{1}{8} = \underline{\quad}$$

$$\frac{3}{7} + \frac{2}{7} = \underline{\quad}$$

$$\frac{2}{9} + \frac{3}{9} = \underline{\quad}$$





# Hula Subtraction

Subtract the fractions.

To subtract fractions that have the same denominator, subtract the numerators. The denominator stays the same.  $\frac{1}{2}$  ← numerator  
← denominator

$$\frac{3}{4} - \frac{1}{4} = \underline{\quad}$$

$$\frac{5}{6} - \frac{3}{6} = \underline{\quad}$$

$$\frac{3}{5} - \frac{2}{5} = \underline{\quad}$$

$$\frac{6}{8} - \frac{4}{8} = \underline{\quad}$$

$$\frac{6}{10} - \frac{2}{10} = \underline{\quad}$$

$$\frac{8}{12} - \frac{1}{12} = \underline{\quad}$$

$$\frac{10}{11} - \frac{6}{11} = \underline{\quad}$$

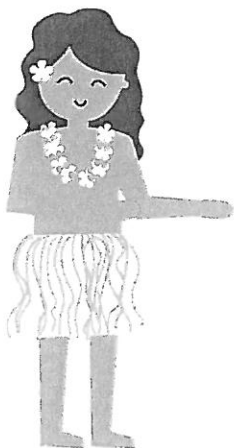
$$\frac{8}{10} - \frac{3}{10} = \underline{\quad}$$

$$\frac{7}{9} - \frac{2}{9} = \underline{\quad}$$

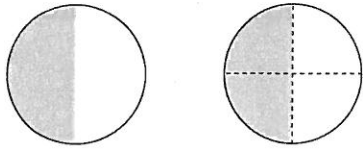
$$\frac{4}{7} - \frac{1}{7} = \underline{\quad}$$

$$\frac{7}{8} - \frac{3}{8} = \underline{\quad}$$

$$\frac{5}{6} - \frac{1}{6} = \underline{\quad}$$



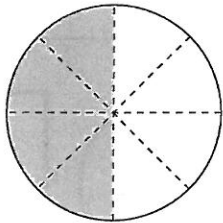
# They're the Same!



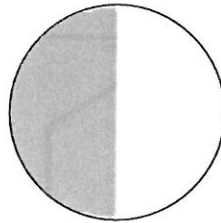
$\frac{1}{2}$  and  $\frac{2}{4}$  are different fractions that equal the same.  
They are **equivalent fractions**.

Equivalent fractions are fractions with the same value.

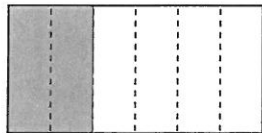
Write the equivalent fraction for each figure.



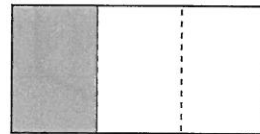
$\frac{4}{8}$



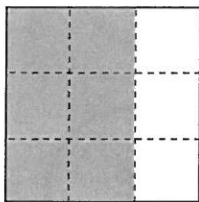
$\frac{\square}{\square}$



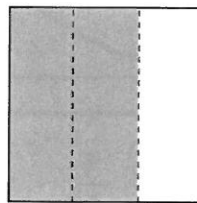
$\frac{2}{6}$



$\frac{\square}{\square}$



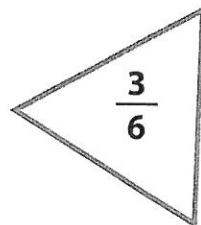
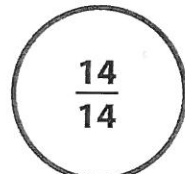
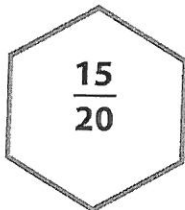
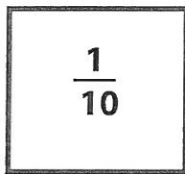
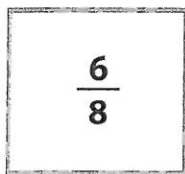
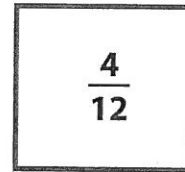
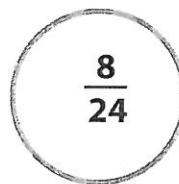
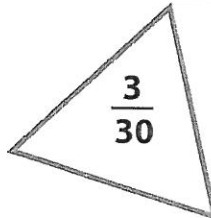
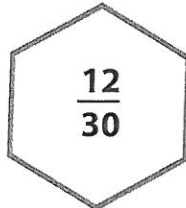
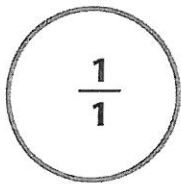
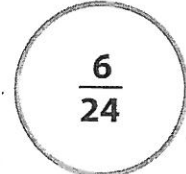
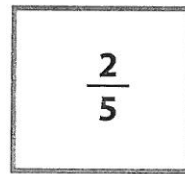
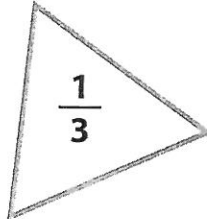
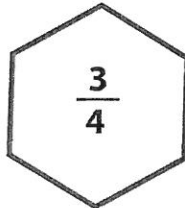
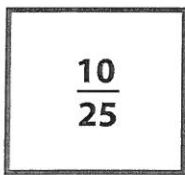
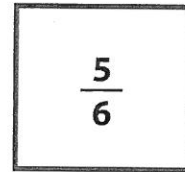
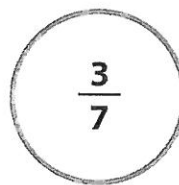
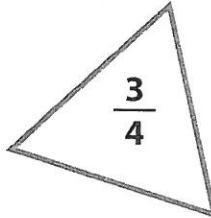
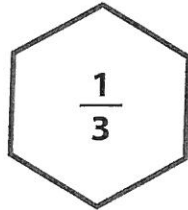
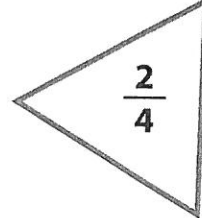
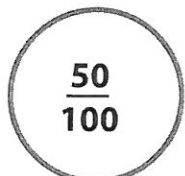
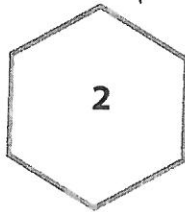
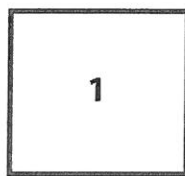
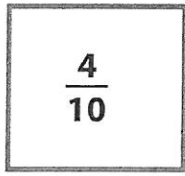
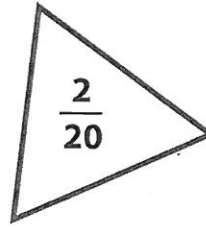
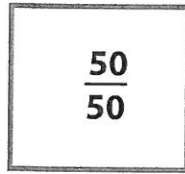
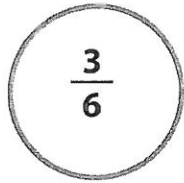
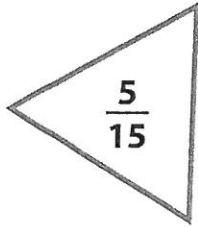
$\frac{6}{9}$



$\frac{\square}{\square}$

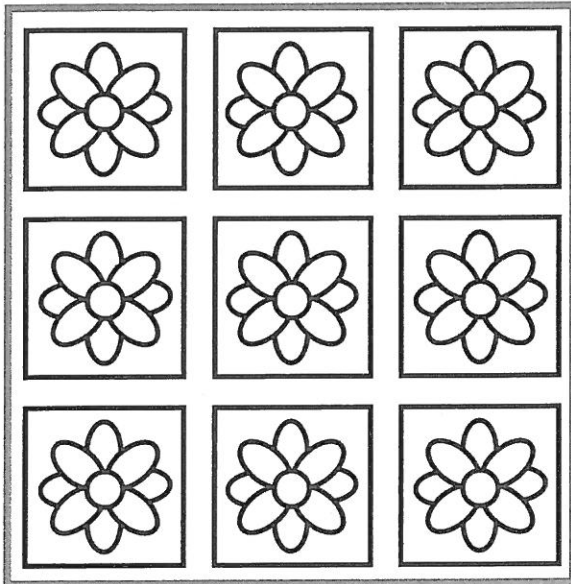
# The Greatest and The Least: Practicing Fractions

Color in the shape with the greatest value red, and the shape with the least value blue.

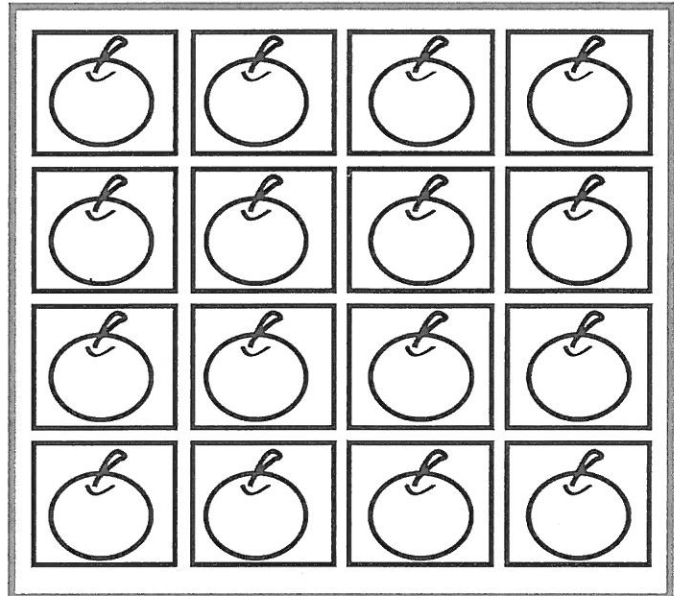


# Colorful Plants: Practicing Fractions

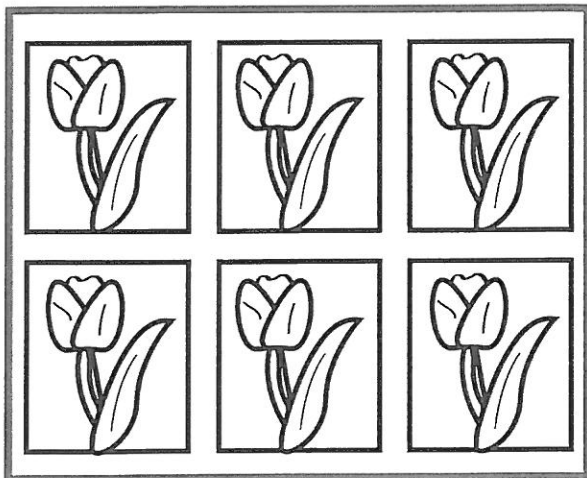
Color in the flowers and fruits according to the description below.



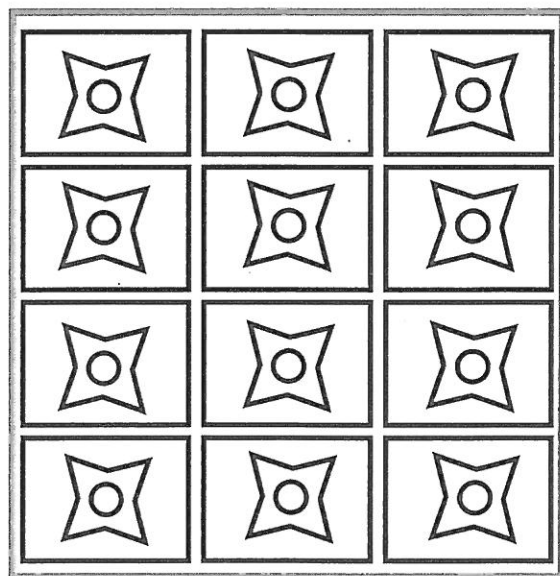
One-third are red flowers.  
Two-sixth are in pink.  
Three-ninth are in blue.



Two-fourths of the apples are green.  
Two-fourths of the rest are red.  
What is left are black.



Half of the tulips are orange.  
One-sixth are in pink.  
The rest are red.



One-third are red flowers.  
One-fourth are in pink.  
Half of the rest are in purple.

# Colorful Shapes: Practicing Fractions

Color in the shapes that have the same value with the same color.

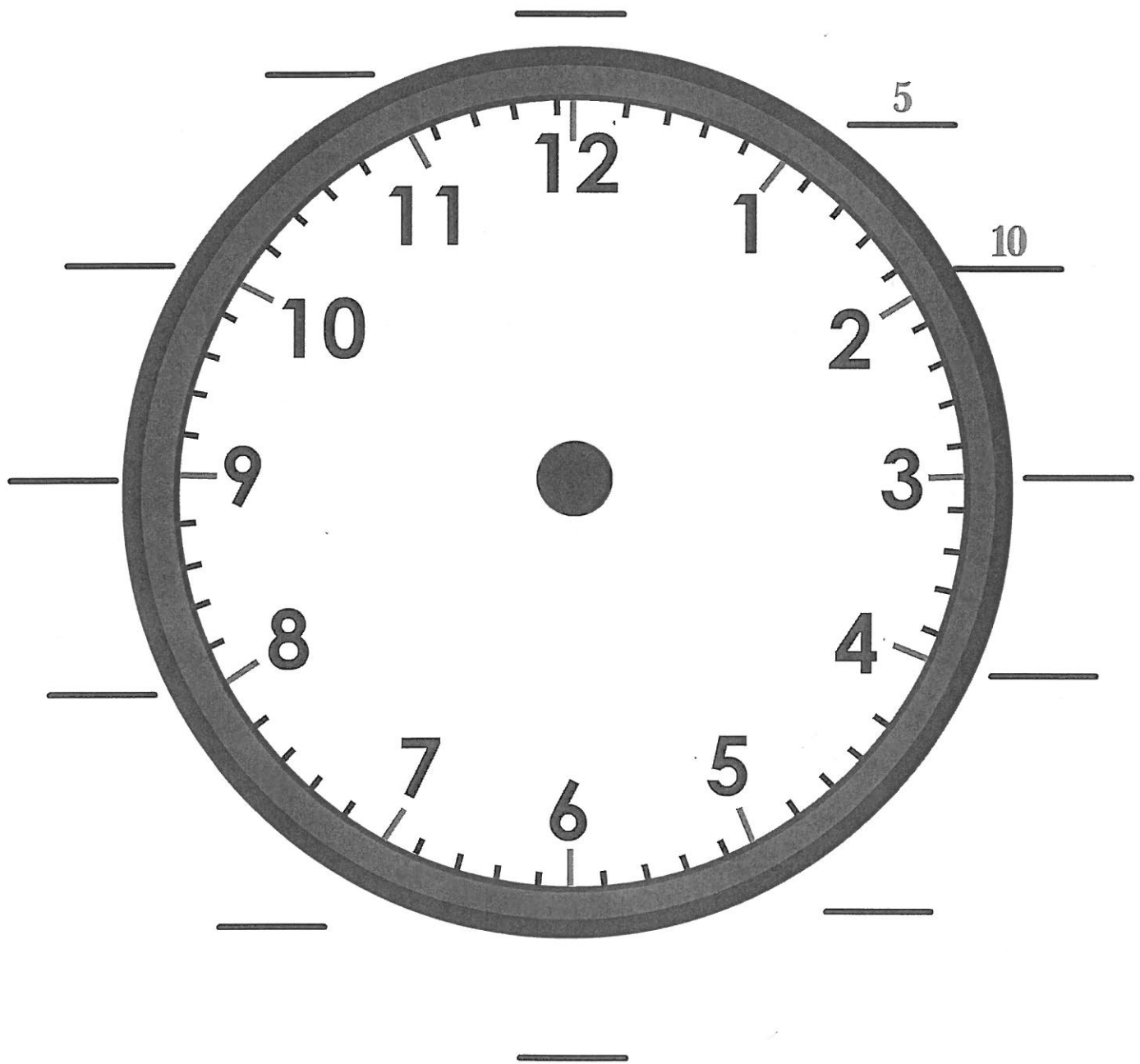
The shapes and their fractions are:

- Circle:  $\frac{3}{9}$
- Triangle:  $\frac{1}{10}$
- Circle:  $\frac{2}{4}$
- Square:  $\frac{5}{15}$
- Square:  $\frac{3}{2}$
- Square:  $\frac{8}{8}$
- Square:  $\frac{9}{12}$
- Triangle:  $\frac{10}{5}$
- Circle:  $\frac{6}{4}$
- Triangle:  $\frac{6}{8}$
- Circle:  $\frac{50}{100}$
- Square:  $\frac{4}{8}$
- Hexagon:  $\frac{15}{18}$
- Hexagon:  $2$
- Hexagon:  $\frac{3}{6}$
- Square:  $\frac{3}{30}$
- Square:  $\frac{5}{6}$
- Circle:  $\frac{4}{12}$
- Square:  $1$
- Triangle:  $\frac{1}{3}$
- Hexagon:  $\frac{3}{4}$
- Circle:  $\frac{2}{20}$
- Triangle:  $\frac{1}{2}$

# Counting by 5's

## How Many Minutes in an Hour?

How many minutes are in an hour? How many minutes can you count on the clock? Count by fives around the clock to find out. The first two are done for you.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Talking About Elapsed Time Vocabulary

What is **elapsed time** anyway? "Elope" is a verb that means to slip or pass away. Elapsed time is time that has passed.

### Here are some other important words to know:

- **Analog Clock:** A clock that has hands.
- **Digital Clock:** A clock that has a digital display.
- **Duration:** The time during which something happens.
- **Elapse:** To pass or go by.
- **Quarter Hour:** 15 minutes, or one quarter of an hour. In time, this is expressed as :15.  
**Example:** *The quarter hour of 2:00 pm is 2:15 pm.*
- **Half Hour:** 30 minutes, or one half of an hour. In time, this is expressed as :30.  
**Example:** *The half hour of 2:00 pm is 2:30 pm.*
- **Three Quarters of an Hour:** 45 minutes, or three-quarters of an hour is expressed as :45.  
**Example:** *Three quarters of an hour for 2:00 pm is 2:45 pm.*
- **PM:** Post Meridian (after midday)
- **AM:** Ante Meridian (before midday)
- **12 noon:** 12:00 pm
- **12 midnight:** 12:00 am

### Choose from the words above to fill in the blanks.

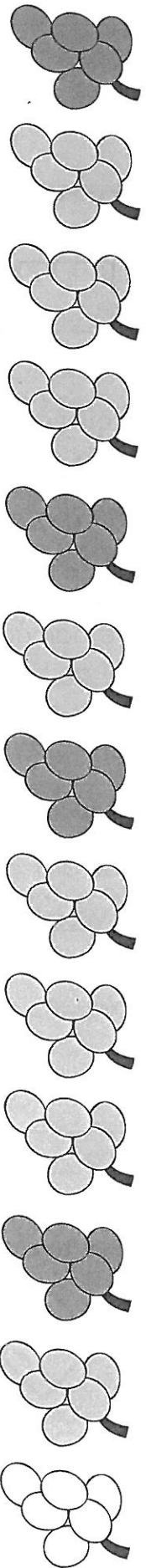
1. Matt's parents didn't have a digital clock so when he was very young. He learned to tell time on an old fashioned \_\_\_\_\_ clock with an hour and a minute hand.
2. At 8:00 \_\_\_\_\_ Sandy had to be at school in the morning. Sandy had to be ready for bed by 8:00 \_\_\_\_\_.
3. 5 hours had \_\_\_\_\_ from the time Marcus got on the airplane to the time he stepped off it in New York City.
4. There are two quarter hours in one \_\_\_\_\_.
5. Erica wanted to stay up past \_\_\_\_\_ on New Year's, but she always fell asleep at around 11:00 \_\_\_\_\_. Her older sister stayed up much later and usually fell asleep at 2:00 \_\_\_\_\_.



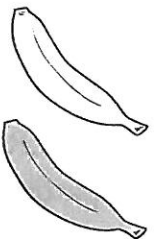


# Complete And Create Your Own Patterns

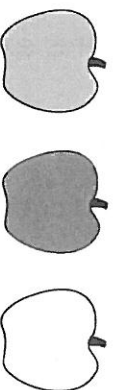
Color the grapes to complete the pattern.



Create your own color pattern using yellow and green bananas.



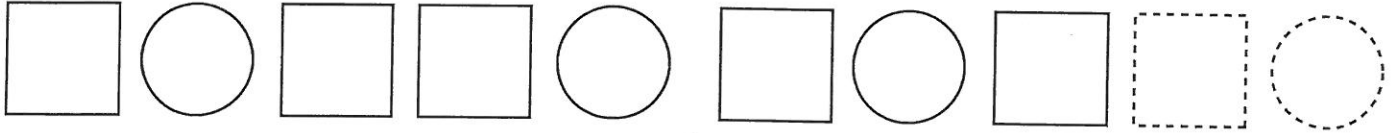
Create your own color pattern using golden, red and green apples.



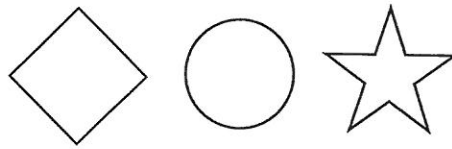


# Complete And Create Your Own Patterns

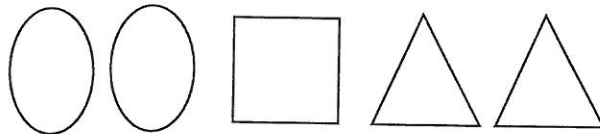
Trace over the dotted shapes to complete the pattern sequence.



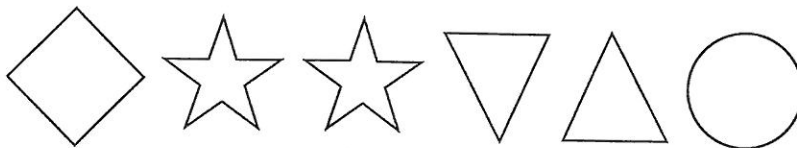
Create a pattern sequence using these shapes. Repeat them in the boxes to complete the pattern. Then add some colors to complete your pattern.



Create a pattern sequence using these shapes. Repeat them in the boxes to complete the pattern. Then add some colors to complete your pattern.



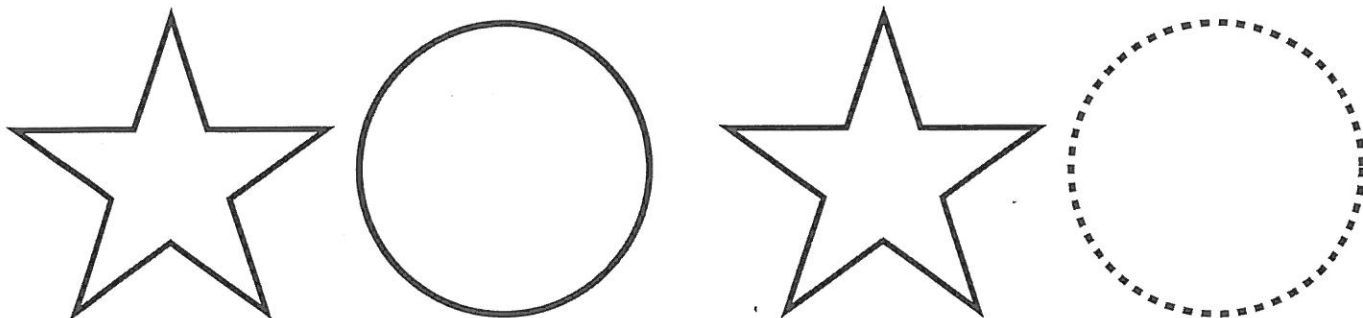
Create a pattern sequence using these shapes. Repeat them in the boxes to complete the pattern. Then add some colors to complete your pattern.



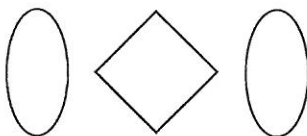


# Complete And Create Your Own Patterns

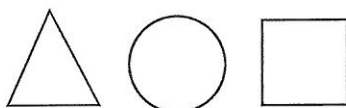
Trace over the dotted shapes to complete the pattern.



Create a pattern sequence using these shapes. Repeat them in the boxes to complete the pattern. Then add some colors to complete your pattern.

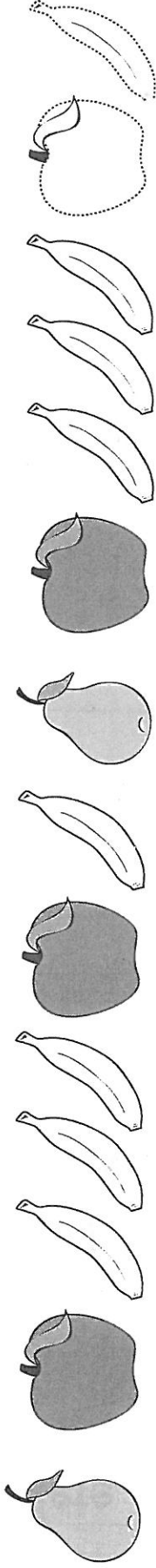


Create a pattern sequence using these shapes. Repeat them in the boxes to complete the pattern. Then add some colors to complete your pattern.

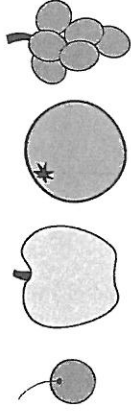


# Complete And Create Your Own Patterns

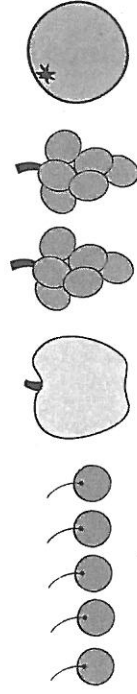
Trace over the dotted fruits to complete the pattern.



Create your own pattern using these fruits. Then color the fruits.



Create your own pattern using these fruits. Then color the fruits.



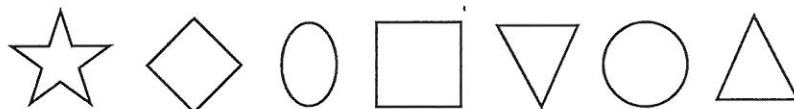


# Complete And Create Your Own Patterns

Trace over the dotted shapes to complete the pattern.



Create 4 new patterns using a few or all of these shapes. You can repeat these shapes any number of times in your pattern. Then color your pattern.



1.

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2.

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3.

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4.

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# Creative Writing

The scenario below can give way to thousands of different stories. It seems like an octopus found some flowers growing in the ocean. Write your version of the scenario below, however use the word bank below to write your story. Use another sheet of paper if you need to. Have fun!

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## Word Bank

BUBBLES  
COLORFUL  
TREASURE  
SHINY  
DELIGHTFUL  
SHELLS  
CRISP  
REFLECTION  
BLUE  
CALM



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