

Cohen Middle School
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Elmira Heights, NY 14903
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Name: _____ Date: September 12, 2019 _____

Math:

LCM & GCF Ladder Method

notes p 5 & 6 Midchart

homework wkshet

Social Studies:

- Finish 5 themes of Geography
- Intro to Latitude and Longitude

HW: WHAT IS GEOGRAPHY?

ELA:

Warm-up

Why we write

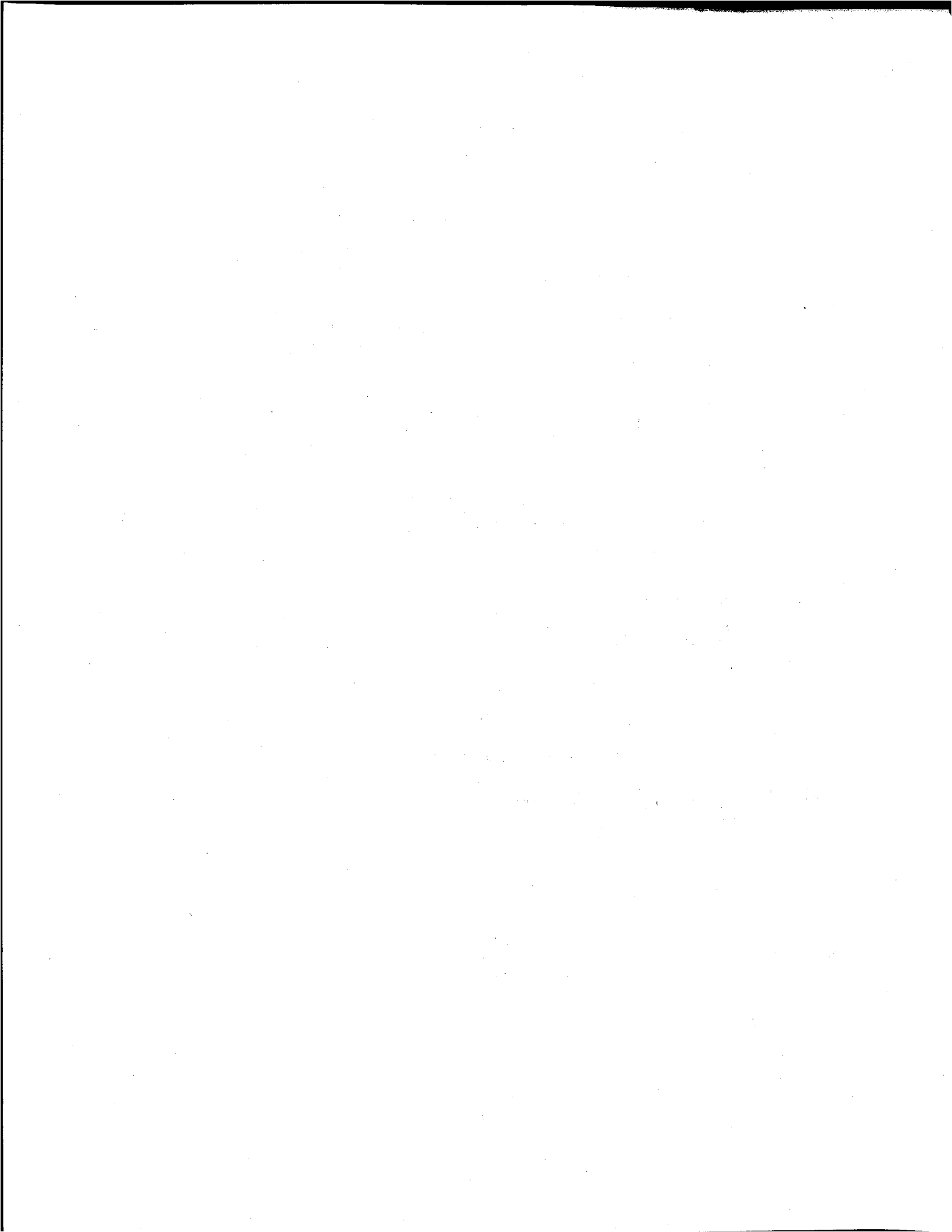
What we write

Cont. from yesterday

Science

Create safety science safety
Contract as
a class.

Computer Apps/ Technology



Name: _____

What Is Geography?

Geography is the study of the Earth and its features. Geographers are people who study geography. They study the people and places on Earth. They also study all the changes that happen over time.

The shape of land changes. Some changes are caused by nature. Some changes are caused by people. People cut down forests. They clear land for farming. People build roads and houses. People use the Earth's materials, or resources, for their needs. People need space to live. They need food, water, and shelter.

Geographers study the physical features of the Earth. Physical features are things like mountains, rivers, and oceans. These features were made by nature. They are called landforms.

In geography class, you use maps and globes. You learn about different continents and oceans. You learn about different countries. You learn about different regions.

Geography is more than just maps of the Earth. Geography is also the study of people and their cultures. There are many different cultures on our Earth. This means there are many different groups of people.

The people in a culture are alike because they share many of the same beliefs. They share ways of doing things. They share ways of dress. They share a religion. They share foods, art, and music.

As you can see, there is a lot to study! The study of geography has five different areas of study called themes.

The first theme is **location**. Location is the answer to the question "Where are we?" We need to know where a place is located. It can be an absolute or exact location. It is a place that can be found on a map or globe. It can be measured. A street address is an absolute location.

There is also relative location. Relative location describes where a place is in relation to something else. On a camping trip, you might describe your camp site as "just past the big boulder by the big pine tree." Another way is to tell how much time it takes to get there. You might tell a friend that your house is "a ten-minute walk south of my school."

Another theme is **place**. What kind of place is it? What comes to your mind when you think of different places like China, Australia, or Iceland? All three of these places have different climates and weather. Different animals live in each place. Different people live there, too. The people have different habits, clothing, and food.

People have built different kinds of homes and buildings in these different places. The way people change their places is a third theme of geography. It is called **human/environment interaction**. Both good things and bad things happen as a result.

Name: _____

When dams are built, some areas of land are flooded. People and animals must move. But the reservoir of the dam holds water. It supplies many people with drinking water. Dams also control flooding downstream.

Sometimes, the place changes the way people live. For example, when the first settlers moved into the Great Plains region, they had to change their ways of farming the land. Farming methods used in the East didn't work on the prairies.

Movement is a fourth theme. The way people move from place to place is different in different places. People need to move food and other items to the places where they live. Over the history of the United States, the ability to move people and things helped the United States grow westward.

People migrate from one country to another to get better jobs or for other reasons. The ease of moving has a big impact on how people live. Natural resources must also be moved from where they are found to where they can be used. Most people on Earth depend on the movement of goods.

Region is the fifth theme of geography. A region is an area. It makes geography easier to study if you look at smaller areas that have things in common. The things may be the land's physical features. They might be the humans who live there or their culture. Geographers also study how regions change over time.

Geography is the study of Earth. It is the study of its landforms and people. To make the study easier, we look at different regions of the Earth. Regions have things that are alike. They may be mountains or other physical features. They may be the people or animals who live there. It is also the study of how places and people change over time.

What Is Geography?

Questions

- _____ 1. Which of these is NOT a physical feature?
 - A. ocean
 - B. river
 - C. religion
 - D. mountain

- _____ 2. Which theme of geography answers the question "Where are we?"
 - A. human/environment interaction
 - B. region
 - C. location
 - D. movement
 - E. place

Name: _____

- _____ 3. Which theme of geography studies the people, weather, climate, and animals of an area?
- A. human/environment interaction
 - B. region
 - C. location
 - D. place
 - E. movement
4. Another word for a physical feature is _____.
- _____ 5. Which theme of geography studies the way people and places change each other?
- A. region
 - B. location
 - C. place
 - D. movement
 - E. human/environment interaction
- _____ 6. Which kind of location can be found on a map or globe?
- A. absolute location
 - B. relative location
- _____ 7. If you tell a friend, "Grandma's house is a thirty-minute drive north of my house," which kind of location are you describing?
- A. absolute location
 - B. relative location
- _____ 8. Physical features were made by _____.
- A. machines
 - B. man
 - C. nature
 - D. all of the above



FACTORS AND MULTIPLES

FACTORS

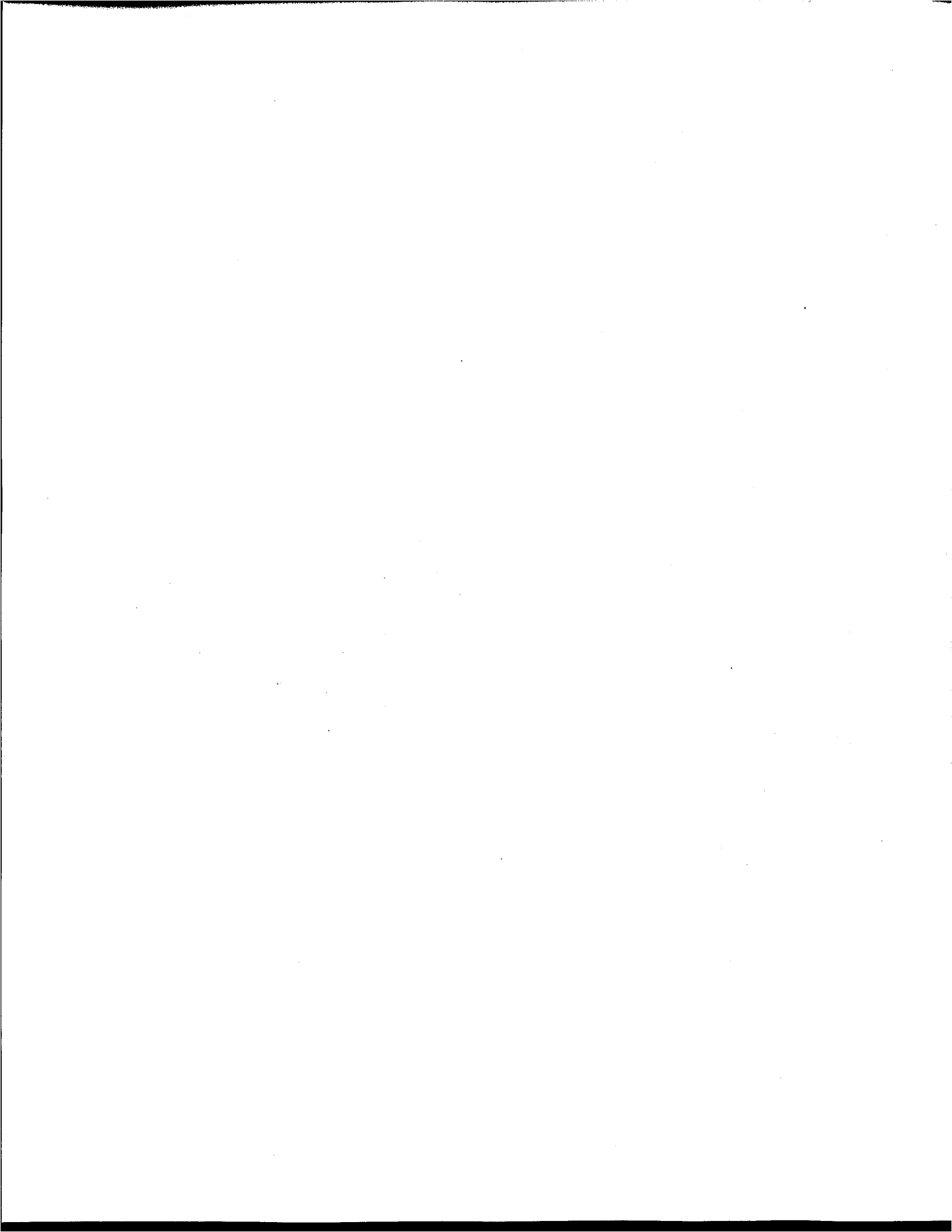
- A number is _____ of other numbers, called factors.
- For example, $2 \cdot 3 = 6$
 - 2 and 3 are factors of 6
- When a set of numbers has the same factor, it is called a Common factor. The GCF is the largest factor that a set of numbers has in common.

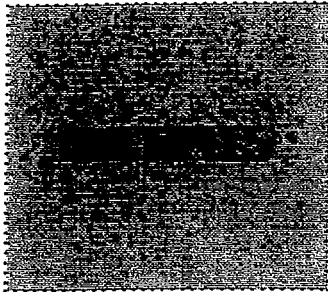
There are several methods to help find the greatest common factor.

VENN DIAGRAMS	<p>Use a factor tree to factor 15 and 60, and then organize the factors into the Venn diagram below.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>15</p> <p>1, 3, 5, 15</p> </div> <div style="text-align: center;"> <p>60</p> <p>↓</p> </div> <div style="text-align: center;"> <p>15 60</p> </div> </div> <p style="text-align: center; margin-top: 10px;">1, 2, 3, 4, 5, 6, 10, 15, 20, 30, 60</p>
LADDER METHOD	<p>Use upside-down division (ladder) to find the greatest common factors.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>20 16</p> <hr style="width: 100%;"/> <p>2 10 8</p> <hr style="width: 100%;"/> <p>5 4</p> <p>2 · 2 = 4 - GCF</p> </div> <div style="text-align: center;"> <p>24 40</p> <hr style="width: 100%;"/> <p>2 12 20</p> <hr style="width: 100%;"/> <p>2 6 10</p> <hr style="width: 100%;"/> <p>3 5</p> <p>2 · 2 · 3 = 12 - GCF</p> </div> </div>

Use your understanding of greatest common factor to answer the questions below.

<p>1. Find the GCF of 24 and 6.</p> <div style="text-align: center;"> <p>2 24</p> <hr style="width: 50%;"/> <p>3 12</p> <hr style="width: 50%;"/> <p>4</p> </div> <p>2 · 3 = 6 GCF is 6</p>	<p>2. Find the GCF of 18, 24, and 60.</p> <div style="text-align: center;"> <p>2 18, 24, 60</p> <hr style="width: 80%;"/> <p>3 9, 12, 30</p> <hr style="width: 80%;"/> <p>3, 4, 10</p> </div> <p>2 · 3 = 6 GCF is 6</p>
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• A multiple of a number is the product of multiplying that number by another number.

Ex: the first five multiples of 7 are

7, 14, 21, 28, 35

skip counting

• The least common multiple is the lowest common multiple a set of numbers has in common.

LCM

List out the first ten multiples of each number. Then, determine the least common multiple.

<p>3.</p> <p>4 and 9</p> <p><u>4, 9</u></p> <p><i>no common factors</i></p> <p>$4(9) = 36$</p> <p>LCM: <u>36</u></p>	<p>4.</p> <p>3 and 12</p> <p><u>3, 12</u></p> <p><u>3, 12</u></p> <p><u>1, 4</u></p> <p>$(1)(3)(4) = 12$</p> <p>LCM: <u>12</u></p>
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Apply your understanding of factors and multiples to answer the questions below.

5. Ella and Ethan planned a BBQ for their soccer team. They purchased 60 hot dogs and 48 individual bags of chips. If each person will receive the same amount of food and there will be no leftovers, then what is the greatest number of people that they can feed?

⊙ The greatest number of people to feed is 12.

a. If each person receives the same amount of food and with no left overs, then what is the greatest number they can feed?

WORK:

$$\begin{array}{r} 2 \overline{) 60, 48} \\ \underline{60, 48} \\ 0, 0 \end{array}$$

$2 \cdot 6 = 12$

b. What will each person receive? 5 Hot dogs 4 bags of chips



6. The Vasquez family visits their grandmother every 3 weeks and spends a day volunteering every 8 weeks. Every 16th week, the Vasquez family takes a day to go hiking.

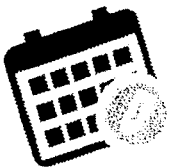
⊙ The family will visit and volunteer every 24 weeks

a. After how many weeks will the Vasquez family both visit their grandmother and volunteer?

WORK:

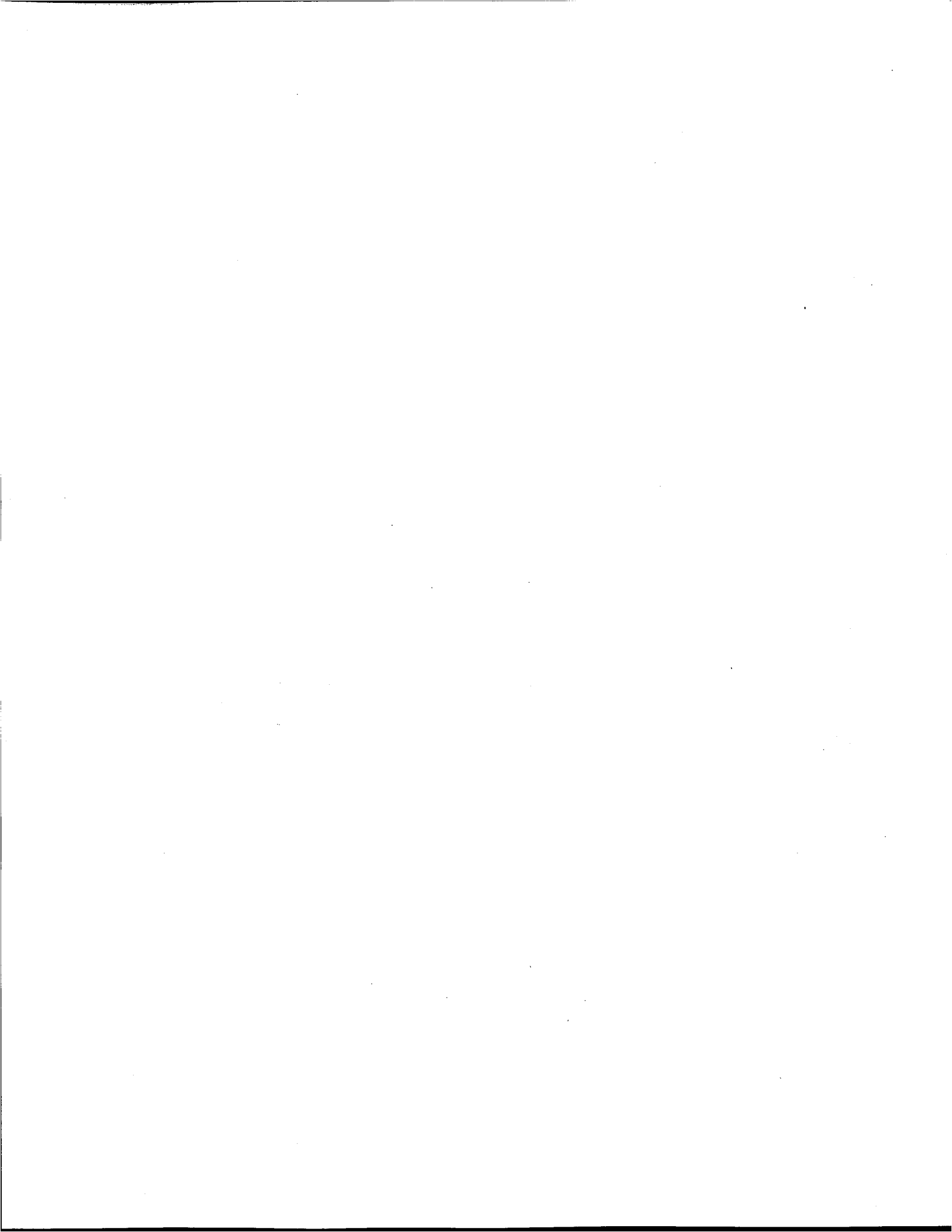
3, 8

*no common factors
so just multiply 3 and 8
 $3 \cdot 8 = 24$*



b. After how many weeks will all three events occur?

weeks



Name _____

Date _____ Pd _____

FACTORS AND MULTIPLES

In questions 1-3, find the least common multiple of each set of numbers.

1. 9 and 7	2. 10 and 6	3. 4, 8, and 3
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In questions 4-6, find the greatest common factor of each set of numbers.

4. 15 and 60	5. 36 and 48	6. 16, 24, and 40
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Answer the questions below by applying your understanding of LCM and GCF.

7. A holiday toy drive is putting together baskets for children. There are 84 toys and 58 books. If each basket will receive the same number of toys and books so that no toys or books are leftover, then how many baskets can be made?



WORK:

8. A neighborhood trash pick-up comes every 7 days, while the recycling pick-up is every 12 days. After how many days will both the trash and recycling be picked up on the same day?



WORK:

On back



9. Addie organizes the Venn diagram below. Her partner Reid says that it is incorrect. Who is correct? Prove your thinking.

