

MCMS
7th Grade
NTI Packet
Day 19

MCMS

7th Grade Math

NTI Day #19

Name _____ Date _____ Class _____

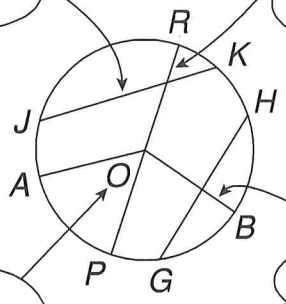
LESSON 8-4

Reteach

Properties of Circles

A chord is a line segment that connects 2 points on the circle. $\overline{JK}$ and $\overline{GH}$ are chords.

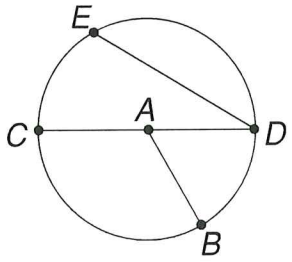
A diameter is a chord that passes through the center of the circle. $\overline{PR}$ is a diameter.



A circle is named by its center. This is circle *O*.

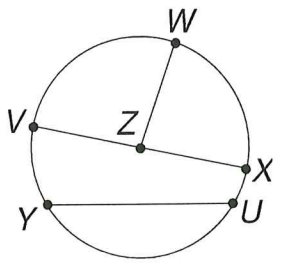
A radius is a line segment that connects a point on the circle with the center of the circle. $\overline{AO}$ and $\overline{BO}$ are radii.

Use circle *A* for Exercises 1–4.



1. $\overline{AB}$ is a _____.
2. $\overline{CD}$ is a _____.
3. $\overline{DE}$ is a _____.
4. $\overline{CA}$ is a _____.

Use circle *Z* for Exercises 5–7.



5. Name 3 radii of circle *Z*.

_____

6. Name 2 chords of circle *Z*.

_____

7. Name the diameter of circle *Z*.

_____

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Name _____ Date _____ Class _____

LESSON 8-4

Practice A

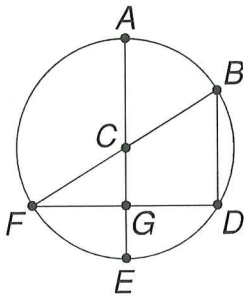
Properties of Circles

Use circle C. Choose the letter for the best answer.

1. Which of the following is a radius?

A $\overline{BD}$ **C** $\overline{CE}$

B $\overline{FB}$ **D** $\overline{GE}$



2. Which of the following is a diameter?

F $\overline{FD}$ **H** $\overline{BC}$

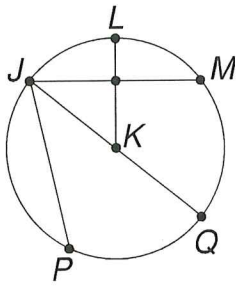
G $\overline{AE}$ **J** $\overline{CG}$

3. Which of the following is a chord?

A $\overline{FD}$ **C** $\overline{BC}$

B $\overline{CA}$ **D** $\overline{GF}$

Name the parts of circle *K*.

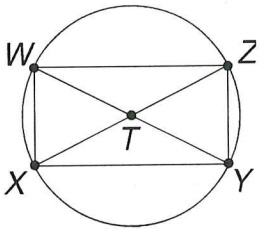


4. radii _____

5. diameters _____

6. chords _____

Name the parts of circle *T*.



7. radii _____

8. diameters _____

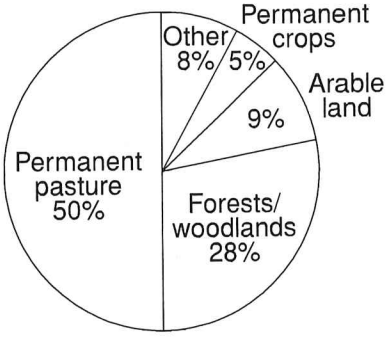
9. chords _____

Use the circle graph.

10. The circle graph shows the uses of land in New Zealand. Find the central angle of the sector that shows the percent of land New Zealand uses for permanent pastures.

_____

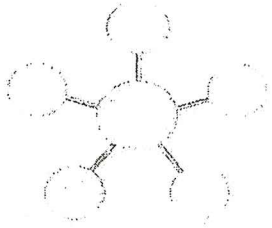
New Zealand Land Use



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7th Science
NTI 19
(2 pages)

Rules for Counting Atoms



$3(Ca_3P_2)$

Coefficient – Indicates the number of molecules and multiplies all atoms in the formula that follow

Subscript – Indicates the number of atoms of that symbol

Ca_3P_2 — **Add the subscripts.**
Answer = 5 atoms

$Na(OH)$ — **We never write 1 as a subscript.**
1 sodium + 1 oxygen + 1 hydrogen = 3 atoms

$3(Ca_3P_2)$ — **Add the subscripts and multiply by the coefficient.** 5 atoms x 3 = 15 atoms

$Au_3(PO_4)$ — **Some atoms are grouped in a bracket. Just add them up.**
3 gold + 1 phosphorus + 4 oxygen = 8 atoms

$Ca_3(PO_3)_2$ — **A subscript to the right of a bracket multiplies all the atoms within the bracket to the left.**
3 calcium + 2 phosphorus + 6 oxygen = 11 atoms

Board Practice

$NaHCO_3$

$C_2H_4O_2$

$(NH_4)_3PO_4$

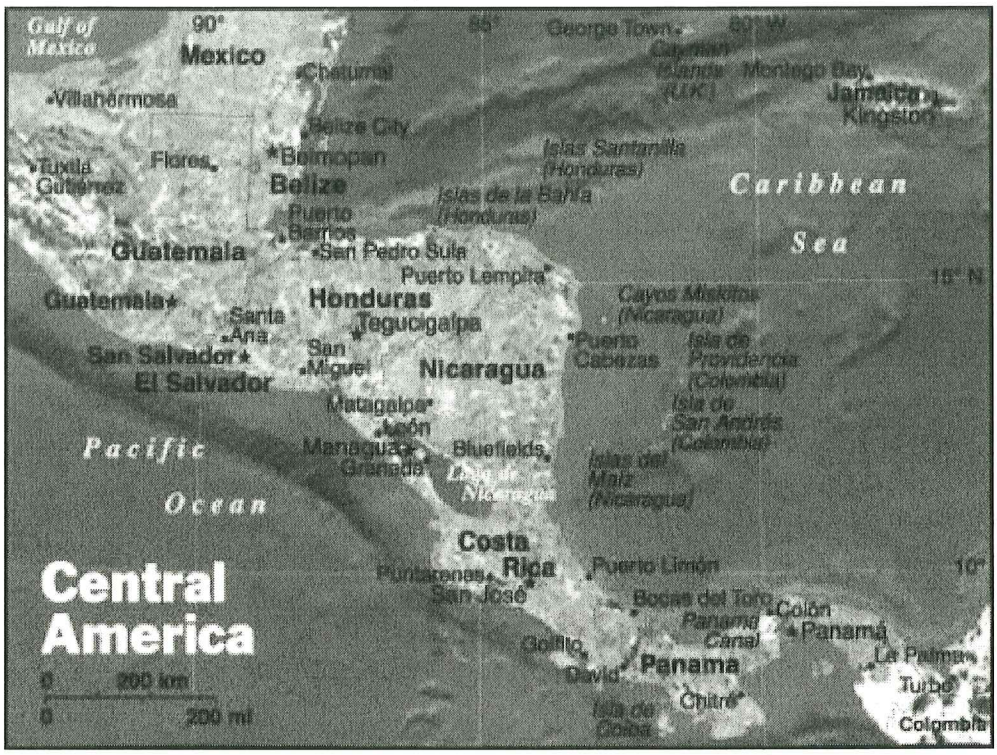
$3H_3PO_4$

$(NH_4)_2(CrO_4)$

$4CaCO_3$

Early People in the Central American Land Bridge

by James Folta



People have been living in Central and South America for many, many years now. How did ancient people live in this area thousands of years ago? Archaeologists studying the area of the Central American land bridge have been working to answer this question.

What is the Central American land bridge? It is the land that is now the countries of Costa Rica and Panama. Like a modern bridge over a river, this land bridge was used by animals and people to travel back and forth. This Central American land bridge connects the northern land that is now Nicaragua, Mexico, and so on to the southern land that is now Colombia, Brazil, and other South American countries.

People who were already living in North America traveled down and across this land bridge. Scientists think they traveled there around 11,000 BC. They probably were following large animals that they hunted and ate. These people would have traveled on foot, following the herds of animals. They had no permanent houses. They would pack up their things and bring them along as they hunted. Their homes were like tents and were very easy to take down and put up. Archaeologists can tell these people traveled via the land bridge because they have found similar arrowheads and tools in both the land bridge and in areas further north and south.

These tools are the main record of people's movement and settlement. Ancient people at this time made their tools, by hand, out of stone. Later, they used obsidian, which is a dark glass formed in volcanoes. They made small hand axes, arrowheads and spearheads by knapping. Knapping is when

you hit one stone with another to break off little pieces. Slowly, you can shape the stone however you want. When certain stones (like obsidian or flint) break, they leave very sharp edges, which can be used to cut.

Archaeologists don't find evidence of these tools very often. When so much time passes, natural things like rain, dirt and trees destroy and bury them. Scientists also think the oceans were lower back then. This means there once was more land that is now underwater. Probably there is more evidence of people living in the area under the sea off the coasts of Costa Rica and Panama.

It is hard to tell when people stopped traveling along the land bridge and began living there. One clue is when people began farming. On the land bridge, this was around 9,000 and 7,000 BC. In Panama, scientists have found evidence that people were growing bottle gourds, squash, and a few other things around that time. These would be in small gardens, not big farms. People weren't eating just the plants they grew at this time. They would gather fruits and nuts from the forest, hunt deer, fish for crabs and fish, and eat from their gardens.

Archaeologists now think that some forests were actually farms too, which makes it harder to determine when hunting and gathering stopped. Places we once thought were wild were perhaps maintained by ancient people. This would be like an apple orchard. It looks like a forest, but has actually been planted and taken care of by humans-you wouldn't know it was a farm for apples unless you looked more closely. The same thing probably happened on the Central American land bridge and elsewhere.

Slowly, people built more permanent houses on the land bridge. The first small village archaeologists have found is in Costa Rica, in a place called Tronadora Vieja. There are round pole and thatch houses, which are simple huts made out of long tree branches covered in leaves and grasses. These houses date to 3,800 BC and were destroyed when a nearby volcano exploded and buried them in ash. Scientists also found the earliest maize kernels on the land bridge, as well as metates. Metates are small stone tables used to grind maize into powder. This was used in cooking and baking, like flour. Nearby at Laguna Zoncho, archaeologists found a bigger village, with more houses and farms. People started living here after Tronadora Vieja, around 3,240 BC.

People were still hunting and gathering at this time, though. Why did some people settle down to farm and some people continue moving around? There are lots of ideas, but on the land bridge, archaeologists think it had to do with the amount of rain and water in the area. Places that had less water made it harder for the forests to remain full of fruits and animals. So in these dry areas, people started to farm more, build houses and stay put. So some groups kept hunting and gathering while others were starting to build and farm.

Archaeologists are still studying this part of the world. Hopefully in the years to come, we can find out more about how ancient people lived on the Central American land bridge.

Name: _____ **Date:** _____

1. What is the Central American land bridge?

A. a manmade bridge between North and South America

B. the ancient name for the country of Mexico

C. the land that is now the countries of Costa Rica and Panama

D. the flooded strip of land between Central and South America

2. What does the author describe in the passage?

A. the Central American land bridge and the people who traveled it

B. the gradual rise in ocean level on the Central American land bridge

C. the species of animals that crossed the Central American land bridge

D. the cultures of North American peoples before 11,000 BCE

3. Why do scientists think that people traveled the land bridge around 11,000 BCE?

A. because scientists found fossilized human footprints in the land bridge

B. because scientists found similar arrow heads and tools in the land bridge and in areas further north and south

C. because scientists found remains of tent-like residences in the land bridge

D. because scientists found evidence of cattle herding in the land bridge

4. People in Panama started farming between 9,000 and 7,000 BCE but did not rely on it as their only food source. What evidence from the text supports this conclusion?

A. "Places we once thought were wild were perhaps maintained by ancient people."

B. "One clue is when people began farming. On the land bridge, this was around 9,000 and 7,000 BCE."

C. "Scientists have found evidence that people were growing bottle gourds, squash, and a few other things around that time. These would be in small gardens, not big farms."

D. "It is hard to tell when people stopped traveling along the land bridge and began living there."

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5. What is this passage mostly about?

A. the rise of agriculture in South America from 9,000 BCE to today

B. how global warming has affected wildlife on the Central American land bridge

C. the development of civilization on the Central American land bridge

D. flint knapping and its importance in ancient Central American culture

6. Read the following sentences: "Places we once thought were wild were perhaps **maintained** by ancient people. This would be like an apple orchard. It looks like a forest, but has actually been planted and taken care of by humans-you wouldn't know it was a farm for apples unless you looked more closely."

As used in the passage, what does "**maintained**" mean?

A. kept in order

B. planned

C. destroyed

D. seeded

7. Choose the answer that best completes the sentence below.

The first people to travel the Central American land had no permanent dwellings; _____ they lived in tents that were easy to take down and put up as they moved around.

A. moreover

B. specifically

C. therefore

D. instead

8. What is knapping and for what did ancient people use it?

9. Why don't archeologists often find evidence of tools in the Central American land bridge? Provide two examples from the text.

10. How can archeologists tell when people started to settle on the land bridge, as opposed to just moving across it? Support your answer with evidence from the text.

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Out of Line Online

by Jennifer Magid

How much sharing is too much?

You've probably heard horror stories of teens being bullied on the Internet. Perhaps you've read about thieves that steal money, and even people's identities, using the Web. Maybe some of those things have happened to people you know.

Most of the time, information that kids and teens post on the Internet doesn't put them in dangerous situations. But that doesn't mean it won't cause embarrassment or damage to friendships. What you post online now may even come back to haunt you years from now.

Shep T., a 14-year-old from Maryland, spends a lot of time on Facebook. But Shep is careful about what he posts. "I don't mind if my friends post pictures of me," Shep says. "I just don't like to put stuff on Facebook that is too personal."

What does it mean to get "too personal" online? How can you know whether you've said too much?

From Small Secrets to Serious Situations

It's no secret that many kids and teens love instant-messaging programs and social networking sites, such as Facebook and MySpace. More than half of 12- and 13-year-olds with Internet access in the United States used one of those sites in 2009. That's according to the Pew Research Center's Internet & American Life Project, which studies how people use the Internet and other kinds of media.

All the commenting and posting kids do can sometimes lead to trouble. "What you share is able to be spread to many, many people in a very short period of time," warns Brian O'Connor, spokesperson for the Family Violence Prevention Fund. The group sponsors Thatsnotcool.com, a site that helps kids deal with tricky online situations. It has e-cards you can send to friends when you think they've shared inappropriate things online.

Even if nobody calls you out about a post, what's said online can cause problems that things said face-to-face can't, O'Connor notes. For starters, what you say online is more long lasting than words that are spoken in person. Although you may have deleted something, it could have been printed out or passed along to someone else. And on some sites, once something is posted, you can't take it back.

Rachel K., 13, of California, has seen what can happen from saying too much online. In one case, a friend got in trouble for comments he made about another friend's photo. The discussion got printed out and shared with parents. Another time, one of Rachel's friends posted something online about a boy another friend liked. The other friend was not happy that the news was out. "Everyone could see it. She was shocked and mad," Rachel says.

Before you post something online about someone else, O'Connor says, ask yourself whether you would want it said about you. "Sleep on it. You might feel differently in the morning," he says.

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It can also be hard to get your real meaning across through the written word. Have you ever said something aloud as a joke that would be hard to understand without a laugh, a shrug, or a roll of the eyes? That may be a clue that those words wouldn't work online. That's something Rachel learned firsthand. Last year, she had a big argument with a friend because of a text message that was misunderstood.

To Share, or Not to Share?

Miley Cyrus said she stopped using Twitter when she started feeling she was too exposed. But you don't have to be a celebrity to feel that way sometimes. And in some cases, putting too much online might do more than just make you uncomfortable.

Right now, it may not feel like a big deal if the world (including friends and strangers) knows what you are doing all day. It might not bother you that anyone can find you online (or, if you're using an application that uses GPS to broadcast your whereabouts, how to find you in person!). But your parents, your teachers, and even your future employers may be able to see things that you post now.

"Being irresponsible with your personal information can damage your relationships and even your future opportunity to be admitted to college," warns Vanessa Domine, an associate professor at Montclair State University in New Jersey. What you are OK with people seeing now may not be OK in a month, a year, or even 10 years.

So what's the best way to know whether you're getting out of line online? In most cases, it's simple. "Think before you type," says O'Connor.

Punished For Postings

Some schools have suspended or expelled students for things they posted online-even outside of school hours. Recent court cases have said that schools can punish students if material they put online creates a great disruption at school.



Thomas Barwick/Getty Images

That also goes for hurtful words. But in those cases, teens could even be charged with crimes. "You can be held responsible for somebody else hurting themselves because of rumors or because of information spread online," says Brian O'Connor. He's a spokesperson for the Family Violence Prevention Fund, which teaches people ways to stop violence and hurtful behavior.

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That's Not Cool?

There are many ways to let your friends (or former friends) know the way they're using their computers or cell phones is not cool. Here are some of the reasons people send the "callout cards" on Thatsnotcool.com

- texting a boyfriend or girlfriend all the time, to keep track of him or her,
- breaking into another person's e-mail account,
- posting lies or insults online,
- spreading hurtful rumors online or through text messages,
- giving out another person's phone number without his or her permission.

Is Age Just a Number?

Most social networking sites don't allow people younger than 13 to sign up. But many kids join before then, either with their parents' permission or without it.

Shep T., 14, first joined a social networking site so that he could stay in touch with his friends from summer camp during the year. "I have not tried to join any other networking sites, but I know people that have tried to and couldn't because of their age," he says.

Rachel K. joined a site with her parents' permission when she was 12 by saying she was already 13. Her mom told *Current Health,* that trust played a big role. "We made an agreement that we could always check her Facebook page and that she couldn't defriend us. I do trust her and feel that she uses it to keep in touch with friends she doesn't see often," she says. But if parents don't know their child is online, or if the kid didn't ask permission before joining, Rachel's mom says that's a different story.

Don't worry-not getting to socialize online definitely isn't the end of the world. "My best friend isn't allowed to have a Facebook [profile]," Rachel says. "But since her older brothers have one, she will get one eventually."

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Name: _____ Date: _____

1. As you think about your future, why do you need to be careful now about what you post online about yourself?

A. Your friends may still hold a grudge against you or post inappropriate pictures of you.

B. Inappropriate personal information may make it hard to find a job or get into college.

C. The internet is like a permanent archive that stores everything that is posted online.

D. You will most likely regret putting anything about yourself on the internet.

2. According to the passage which of the following is not a problem that causes people to send "callout cards"?

A. spreading hurtful rumors online or through text messages

B. posting lies or insults

C. stealing someone's identity

D. breaking into another person's email account

3. The spokesperson for the Family Violence Prevention Fund most likely

A. encourages friends to post whatever they want online

B. is very cautious about what information he posts online

C. shares his friends' secrets on Facebook

D. posts inappropriate comments online all of the time

4. Read the following sentence:

"Miley Cyrus said she stopped using Twitter when she started feeling she was too exposed."

In this sentence the word **exposed** means

A. without help

B. out in the open

C. challenging

D. annoyed

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5. The main point of this passage is to

A. teach kids and teens how to use social networking sites like Facebook and Twitter to socialize with friends

B. explain the multiple problems with social networking sites for kids and teens and brainstorm some ways to prevent these problems

C. urge colleges and future employers to examine the internet for background information on a candidate

D. argue for tighter internet controls for kids and teenagers so that youth cannot get into trouble online

6. What is one solution listed in the passage to help prevent you from posting something unkind or inappropriate online?

_____

_____

_____

7. Rachel K's friend got into trouble for comments he made about another friend's picture. Do you think those comments were complimentary or insulting? Use evidence in the passage to support your response.

_____

_____

_____

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8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Recent court cases have defended the school's right to punish students _____ they post information online that causes a disturbance at school.

A. so

B. before

C. but

D. if

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