

MCMS
6th Grade
NTI Packet
Day 22

Select the correct answer(s) from the given options:

1. Multiply: 2.4 × 4 =
   a) 96
   b) 9.6
   c) 960
   d) 0.96
2. Multiply: 4.6 × 9 =
   a) 4.14
   b) 414
   c) 41.4
   d) 0. 414
3. Multiply: 9.3 × 14 =
   a) 103.25
   b) 103.22
   c) 10.32
   d) 103.2
4. Multiply: 3.82 × 12 =
   a) 45.48
   b) 4.584
   c) 45.84
   d) 458.4
5. Multiply: 23.63 × 16 =
   a) 378.08
   b) 378.80
   c) 37.08
   d) 38.08
6. Multiply: 7.47 × 24 =
   a) 177.28
   b) 279.28
   c) 179.28
   d) 179.82
7. Multiply : 6 × 8 ones =
   a) 48 tenths
   b) 48 tens
   c) 48 ones
   d) 48 hundreds
8. Multiply : 3 × 7 ones =
   a) 21 hundredths
   b) 21 tenths
   c) 21 tens
   d) 21 ones
9. Multiply : 5 × 7 tenths =
   a) 35 tenths
   b) 35 ones
   c) 35 hundreds
   d) 35 hundredths
10. Multiply : 0.8 × 1.2 =
    a) 9.6
    b) 0.96
    c) 0.096
    d) 0.906
11. Multiply : 1.4 × 3.6 =
    a) 50.4
    b) 5.04
    c) 5.004
    d) 5.4
12. Multiply : 4.928 × 1.5 =
    a) 73.92
    b) 7.492
    c) 7.392
    d) 7.39
13. Multiply : 27.52 × 23.9 =
    a) 657.728
    b) 657.028
    c) 657.708
    d) 557.728
14. Fill in the blank.
    3 tenths × 6 tenths = _____ tenths
    a) 180
    b) 18

Select the correct answer(s) from the given options:

1. Choose an expression for :
4 times the sum of 34 and 8

a) 4 + (34 + 8) b) 4 × (34 + 8)

c) (4 × 34) + 8 d) 34 + (4 × 8)

2. Choose an expression for :
5 times the difference between 54 and 49

a) (5 × 54) – 49 b) 5 + (54 – 49)
c) 5 × (54 – 49) d) 54 - (5 × 49)

3. Choose an expression for :
3 times the sum of 23 and 7

a) 3 + (23 + 7) b) (3 × 23) + 7

c) 3 × (23 + 7)

4. Choose an expression for :
8 times the difference between 43 and 38

a) 8 × (43 + 38) b) 8 × (43 – 38)

c) 8 ÷ (43 – 38)

5. Choose an expression for :
The sum of 9 and 5, doubled

a) (9 + 5) + 2 b) (9 + 5 x 2)

c) 9 + 5 x 2 d) (9 + 5) x 2

6. Choose an expression for :
4 times the difference between 26.8 and 23.7

a) 4 + (26.8 – 23.7) b) (4 × 26.8) – 23.7

c) 4 × 26.8 – 23.7 d) 4 × (26.8 – 23.7)

7. Choose an expression for :
Three less than the product of 5 and 6

a) (5 × 6) – 3 b) 3 – (5 × 6)

c) 5 × (6 – 3)

8. Choose an expression for :
Six more than the product of 3 and 8

a) (3 + 8) × 6 b) (3 × 8) + 6

c) 3 × (8 + 6)

9. Choose an expression for :
Triple the sum of 24 and 16

a) 24 + (16 + 3) b) (24 + 16) x 3

c) 24 + (16 x 3) d) (24 × 16) + 3

10. Choose an expression for :
Four less than the product of 14 and 5

a) (14 × 5) – 4 b) (14 + 5) – 4

c) 14 × (5 – 4) d) (14 × 5) + 4

11. Choose an expression for :
The product of 6 and 8, divided by 4

a) 6 × (8 ÷ 4) b) (6 × 8) ÷ 4

c) 6 ÷ 4 × 8

12. Choose an expression for :
The sum of 4 nines and 3 nines

a) 4 + (3 × 9) b) 4 × 9 + 3

c) (4 × 9) + (3 × 9)

13. Choose an expression for :
The sum of 7 twenties and 4 twenties

a) (7 + 20) × (4 + 20) b) 7 + (4 × 20)

c) (7 × 20) + (4 × 20) d) 7 × 20 + 4

14. Choose an expression for :
The sum of 22 fives and 16 fives

a) (22 × 5) + (16 × 5) b) (22 × 5) × (16 × 5)

c) 22 + 16 × 5 d) (22 + 5) × (16 + 5)

15. Choose an expression for :
The difference between 7 forty-six and 4 forty-six

a) (7 × 46) + (4 × 46) b) (7 × 46) – (4 × 46)

c) 7 – (4 × 46)

16. Choose an expression for :
Half of the difference between 26 and 18

a) 26 ÷ 2 – 18 b) (26 – 18) ÷ 2

c) 26 – (18 ÷ 2)

17. Choose an expression for :
The difference between 4 sixteens and 2 fourteens

a) (4 + 2) + (16 – 14) b) (4 + 16) – (2 + 14)

c) (4 + 16) + (2 + 14) d) (4 × 16) – (2 × 14)

18. Choose an expression for :
The sum of 5 fifteens and 3 fifteens

a) (5 + 15) + (3 + 15) b) 5 × (3 × 15)

c) (5 × 15) + (3 × 15) d) (5 × 15) + (3 + 15)

19. Choose an expression for :
Half of the sum of 32 and 8

a) 32 ÷ 2+ 8 b) 32 + (8 ÷ 2)

c) (32 + 8) ÷ 2

20. Choose an expression for :
20 times the sum of 4 and 2

a) (20 × 4) + 2 b) 20 × (4 + 2)

c) 20 × 4 + 2

Read the selection and choose the best answer to each question. Then fill in the answer on your answer document.

6th English
Day # 22

Fire Birds

1 To humans the area where a recent forest fire occurred may seem devastated. Yet for some species of animals, it is a place full of promise for new life. As larger animals like deer and bears leave the forest to find new homes, the black-backed woodpecker often makes the forest its new home. Doing so helps restore life to the damaged forest.



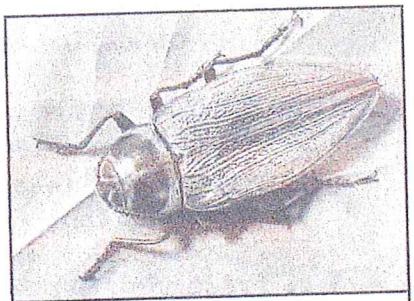
Black-Backed Woodpecker

Robert Royse/BIA/Getty Images

A Special Kind of Bird

2 The black-backed woodpecker is a medium-sized bird found in Canada, Alaska, and parts of the northwest United States. Its dark colors make it hard for predators to detect among trees blackened by fire. This woodpecker relies on the environment of the burned forest. It is mainly attracted to the area by a food source: the beetle.

3 After a forest fire certain types of beetles are attracted to the smoke and heat. They travel to the forest and move in. Here they dig into and eat the charred wood. Scientists believe that the black-backed woodpecker hears the activity and follows the beetles to the forest. With plenty of beetles to feed on, the woodpecker begins building a new home by drilling and pecking at a burned tree.



Woodpeckers eat beetles that live in the trees damaged by fire.

© Laemage/Corbis

4 The black-backed woodpecker builds a home called a nest cavity. This nest is usually built inside a tree trunk or a fallen log. The bird has a pointy, hard beak designed for drilling into wood. It also has a very thick skull bone and a strong neck. Both help it tolerate the constant pecking that is required to build its nest. Its feet feature sharp nails that allow the woodpecker to cling to the tree while it pecks away at its new home. The woodpecker can move into the nest cavity as soon as it is drilled. It will live in its home until it builds a new nest for itself the following year.

Homes for All



A black-backed woodpecker peeks out of a nest cavity.

Sam Fried/Getty Images

5 The black-backed woodpeckers are the home builders of the burned-out forest. They play a vital role in restoring the forest. The homes they build can be used by other birds. "Woodpeckers are pathfinders," says Dick Hutto, a professor at the University of Montana who studies black-backed woodpeckers. "They create the conditions that are going to be improved for birds four, five, six, seven years later. . . ."

6 As the black-backed woodpeckers abandon their nests, more and more animals are able to find homes as they return to the forest. More insects come to live in the trees, followed by birds that eat the insects and, eventually, by bigger animals that eat the birds. In this way plant and animal life slowly returns to the forest.

Bringing New Life

7 Although natural areas burned by fire may not seem very lively, the black-backed woodpecker's drilling is not the only action taking place. The plentiful ash on the forest floor acts as a natural fertilizer. The ash helps bring about new growth. Plants blossom and provide fruits and seeds for the forest dwellers to eat. Other types of woodpeckers often live in burned forests too. Some finches, robins, and warblers move in, along with western bluebirds and mountain bluebirds. Amazingly even hummingbirds may live in burned forests. They can eat the flower nectar of the new plant growth.

8 The black-backed woodpecker does not stay in its new "neighborhood" for the rest of its life. It tends to live in the area for only three or four years. Then the woodpecker moves to another forest more recently affected by a fire. The hard work it has done, however, will benefit other animals for many years to come.

Preserving Habitats

9 Often when there is a forest fire, people may want to clean it up by removing some of the burned or dead trees. Some ecologists, however, say that taking away the burned trees is actually taking away the precious habitats of birds and other forest animals. For the black-backed woodpeckers, these trees are more useful burned and dead than when the trees were healthy and alive.

10 According to a 2014 article published by the Center for Biological Diversity and the John Muir Project, "Burned forests are not dead zones, but rather teem with life." Terry Rich, who works for the U.S. Fish and Wildlife Service in Idaho, encourages people to visit the forests that have experienced fires in the past. "Go to the burned forests and see what you can see," he says. If you take his advice, you will likely be surprised by the abundance of life you find there.

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8 Based on information presented in the selection, what can the reader conclude about the black-backed woodpecker?

F It prefers to eat small insects but also consumes a variety of fruits and seeds.

G It is better protected from danger when living in a burned forest than when living in an unburned forest.

H It moves from forests in Canada to forests in the United States each year.

J It leaves the burned forest because other birds invade its habitat.

---

9 Read the origin of the word devastate.

> from Latin *de-* + *vastare*, meaning "to lay waste"

This information helps the reader understand that devastated in paragraph 1 means —

A ruined

B empty

C harsh

D remote

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10 The author wrote this selection most likely to —

F describe ways that forest fires affect an area

G explain how burned forests benefit from the black-backed woodpecker

H convince the reader that the black-backed woodpecker is an unusual type of bird

J demonstrate the ways animals survive in different types of forests

11 Which sentence from the selection best explains why the black-backed woodpecker is able to build its unique type of home?

A *This woodpecker relies on the environment of the burned forest.* (paragraph 2)

B *This nest is usually built inside a tree trunk or a fallen log.* (paragraph 4)

C *It also has a very thick skull bone and a strong neck.* (paragraph 4)

D *The woodpecker can move into the nest cavity as soon as it is drilled.* (paragraph 4)

---

12 What can the reader conclude from paragraphs 5 through 8?

F The work of the black-backed woodpecker has a lasting impact on the survival of other forest birds and animals.

G The black-backed woodpecker moves to another forest when it has difficulty finding food.

H Plants on the forest floor produce fruits and seeds that attract black-backed woodpeckers to the burned forest.

J The black-backed woodpecker is without a home when people try to clean up a burned forest.

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13 The photograph and caption next to paragraphs 5 and 6 in the selection convey the idea that the nest cavity —

A extends beyond the tree

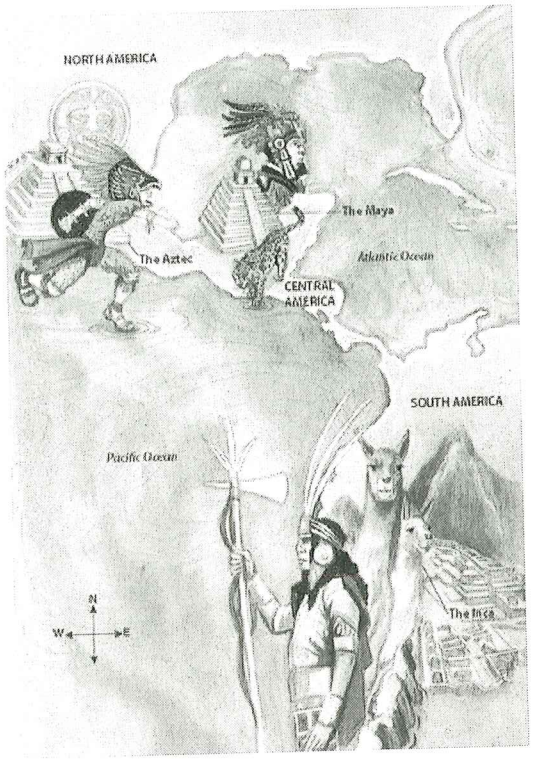
B is fast and easy to construct

C can only be used in certain seasons

D provides a safe environment

Ruins in the Rain Forest

This text is adapted from an original work of the Core Knowledge Foundation.



In the centuries before Europeans came to the Americas, great civilizations thrived in present-day Mexico, Central-America, and South America. These included the Maya, Aztec, and Inca.

The Vanishing Civilization

Do you like mysteries? Try this one: More than a thousand years ago, a great civilization of American Indian peoples built cities across Mesoamerica-an area today that is made up of parts of Mexico and Central America. They built stone temples and pyramids that rose far above the forest treetops. They were the Maya.

The Maya, one group of native peoples, discovered important mathematical ideas. They also studied the movements of the stars. Using this knowledge, the Maya made a calendar almost as accurate as the one we use today. Then, after hundreds of years of growth, many key elements of Maya civilization disappeared. The people abandoned their once-thriving cities. This great urban society and many of its traditions were mysteriously transformed, although Mayan-speaking people continue in this part of Mesoamerica to the present.

Finding the Ruins



In 1839, two American explorers heard stories of mysterious ruins in the rain forests of Central America. Curious, they set out to see for themselves. The two men first explored the remains of the city of Copán (/koh*pahn/) in the present-day country of Honduras. From the architecture, it was clear the ruins had been left by an ancient and advanced civilization. The two Americans continued their journey, exploring many other ruins. Then, they returned to the United States and wrote a best-selling book about their

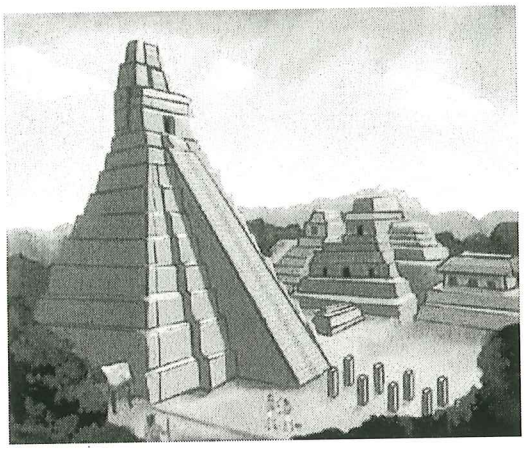
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findings. Their tales and drawings inspired worldwide interest in the history of the Maya.

Archaeologists still study the remarkable Maya.

Since the mid-1800s, archaeologists and other experts have continued to study these remarkable people. Recent breakthroughs in research have revealed just how much the Maya accomplished. Let's take a closer look at what we know about them and what still remains a mystery.

At its peak, the Maya civilization included a large group of city-states that were allied with, fought, and conquered each other. These cities were located on the Yucatán Peninsula in what is today southeastern Mexico and the countries of Guatemala, Honduras, and Belize. Archaeologists believe that Maya civilization reached its greatest extent between about 200 and 900 CE.



Maya pyramids were grand monuments that reached toward the sky.

The largest buildings in Maya cities were pyramids that also served as temples. These structures served religious purposes. From their size, it is clear that religion was a key part of Maya life. Maya pyramids rose high above the surrounding treetops. Maya pyramids were some of the tallest structures in the Americas until 1902. That year, the twenty-two-story Flatiron Building was constructed in New York City.

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Name: _____ Date: _____

1. Who were the Maya?

A. the New Yorkers who constructed the Flatiron Building

B. the people currently living in Mesoamerica

C. a great and ancient civilization of American Indians

D. a large group of archaeologists and experts

2. What does this text describe?

A. This text describes the Maya civilization, their accomplishments, what archaeologists and other experts have discovered about them, and the mysteries that remain about this civilization.

B. This text describes the many ways the Maya people have helped and influenced the society in which we live in today and what we hope to learn from these people in the future.

C. This text describes the challenges that the two American explorers faced while exploring the remains of the city of Copán (/koh*pahn/) in the present-day country of Honduras.

D. This text describes what life was like for people who lived in the Maya civilization when it reached its greatest extent between about 200 and 900 CE.

3. The Maya people were an advanced civilization.

What evidence from the text supports this statement?

A. Ancient Maya cities were located on the Yucatán Peninsula. Today this is southeastern Mexico and the countries of Guatemala, Honduras, and Belize.

B. In 1839, two American explorers heard stories of mysterious ruins in the rain forests of Central America. Curious, they set out to see for themselves. The two men first explored the remains of the city of Copán.

C. When the two American explorers returned to the United States, they wrote a best-selling book about their findings. Their tales and drawings inspired worldwide interest in the history of the Maya.

D. The Maya discovered important mathematical ideas. They also studied the movements of the stars. Using this knowledge, the Maya made a calendar almost as accurate as the one we use today.

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4. Read these sentences from the text:

> Archaeologists believe that Maya civilization reached its greatest extent between about 200 and 900 CE. The largest buildings in Maya cities were pyramids that also served as temples . . . Maya pyramids rose high above the surrounding treetops. Maya pyramids were some of the tallest structures in the Americas until 1902. That year, the twenty-two-story Flatiron Building was constructed in New York City.

Based on this information, what can you conclude about the Maya Civilization?

A. The Maya civilization had better architects than we have today.

B. They were an extremely advanced civilization for their time.

C. They only built tall buildings.

D. All of their buildings were shaped like pyramids.

5. What is the main idea of this text?

A. The Maya civilization reached its greatest extent between about 200 and 900 CE. Maya pyramids were some of the tallest structures in the Americas until 1902. That year, the twenty-two-story Flatiron Building was constructed in New York City.

B. When two American explorers returned from their trip exploring the Maya ruins, they wrote a best-selling book about their findings. Their tales and drawings inspired worldwide interest in the history of the Maya.

C. The Maya people were anancient and very advanced civilization. Since the mid-1800s, experts have studied these remarkable people and have discovered some of the amazing things they accomplished; however, many mysteries still remain.

D. The Maya built stone temples and pyramids that rose far above the forest treetops. They discovered important mathematical ideas. They also studied the movements of the stars. Using this knowledge, the Maya made a calendar almost as accurate as the one we use today.

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6th Grade SCIENCE

NTI DAY 22

Gold Team-Log onto READWORKS.ORG to submit your answers

MAROON TEAM- Submit your answers through the MCMS NIT Virtual Classroom

SPACE JUNK

Many people know that trash is a big problem on planet Earth. What many people don't know is that trash has become a problem in outer space too. Years of space exploration have left tons of "space junk" in orbit around the planet.

According to *BBC News*, there are more than 22,000 pieces of junk in space around the earth. And these are just the items that we can see from the surface of the earth by telescopes or radars. There are also millions of smaller pieces of junk that we can't see.

Objects, like bits of old space rockets or satellites, move around the planet at very high speeds, so fast that even a very small piece can break important satellites or become dangerous to people, particularly astronauts. If the tiniest piece of junk crashed into a spacecraft, it could damage the vehicle. That's because the faster an object moves, the greater the impact if the object collides with something else.

To make things worse, when two objects in space collide, the two objects break into many smaller pieces. This happened in 2009 when a working United States satellite collided with a Russian satellite that was no longer functioning. The collision caused the satellites to break into more than 2,000 pieces, increasing the items of space junk.

To help minimize additional space junk, countries around the world have agreed to limit the time their space tools stay in orbit to 25 years. Each tool must be built to fall safely into the earth's atmosphere, or the mass of gases that surround the earth, after that. In the upper parts of the atmosphere, it will burn up.

Many scientists are also proposing different ways to clean up space junk. In England a metal harpoon is being tested that can be fired into space trash, grip the trash, and then pull the space junk into the earth's atmosphere where it would burn up.

The Germans have been planning a space mission with robots that would collect pieces of space trash and bring them back to Earth so that they can be safely destroyed.

In 2007 the Chinese tried to blow up one of its older satellites with a missile. Unfortunately, the explosion only created thousands of smaller pieces, adding junk in space!

"In our opinion the problem is very challenging, and it's quite urgent as well," said Marco Castronuovo, an Italian Space Agency researcher who is working to solve the problem. One reason that it's urgent is that countries are sending more and more objects into space. Many of these objects are tools that help people use their cell phones or computers.

"The time to act is now; as we go farther in time we will need to remove more and more.

Comprehension Questions

1. What has left tons of "space junk" in orbit around the earth?

1. robots sent on space missions
2. years of space exploration
3. lack of recycling
4. missiles in outer space

2. Countries around the world have agreed to limit the time their space tools stay in orbit to 25 years. As explained in the passage, what problem does this solution address?

1. the increasing amount of space junk in orbit around the earth
2. space agencies exploring space
3. Chinese efforts to blow up a satellite
4. objects moving around the planet at very high speeds

3. Trash has become a problem in outer space too.

What evidence from the text best supports this statement?

1. The Chinese tried to blow up one of its satellites with a missile in 2007.
2. In England, a metal harpoon is being tested that can be fired into space, gripping space trash and pulling it back into the earth's atmosphere to burn up.
3. The Germans have been planning a space mission with robots to collect some space trash and bring it back to Earth.
4. According to *BBC News*, there are more than 22,000 pieces of junk in space around the earth.

4. Why have countries agreed to build space tools that must fall safely into the earth's atmosphere?

1. so that the tools can remove pollution from the atmosphere after returning from space
2. so that the tools burn up in the atmosphere and don't become space junk
3. so that the tools pollute the atmosphere instead of outer space
4. so that the tools can analyze the different gases that make up the atmosphere after returning from space

5. What was the passage mostly about?

1. different missions scientists are trying in space
2. the effects that tiny pieces of space junk could have on the earth
3. the problem of space junk and scientists' attempts to solve this problem
4. the problem of trash on planet Earth

6. Read the following sentences: "'In our opinion the problem is very challenging and it's quite urgent as well,' said Marco Castronuovo, an Italian Space Agency researcher who is working to solve the problem. One reason that it's urgent is that countries are sending more and more objects into space. Many of these objects are tools that help people use their cell phones or computers."

What does the word urgent most nearly mean?

1. **easy to solve**
2. **unnecessary**
3. **needs immediate attention**
4. **minor**

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

Years of space exploration have left tons of "space junk," _____ many scientists are trying to find a way to clean up outer space.

1. **so**
2. **instead**
3. **because**
4. **similarly**

8. What did the 2009 collision of a United States satellite and a Russian satellite cause?

9. What have the Germans done to help clean up space junk?

10. Different countries have explored or are exploring different methods to clean up space junk. Explain why some methods may be more effective than others. Use evidence from the text to support your answer.

Name: _____

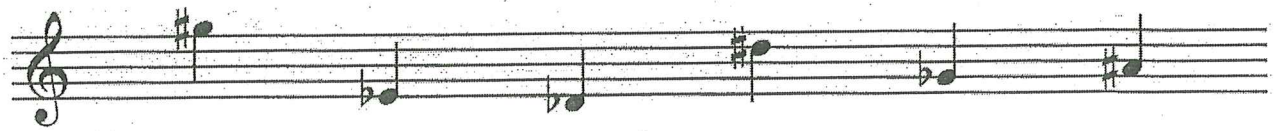
NOTE NAMES

Class: _____

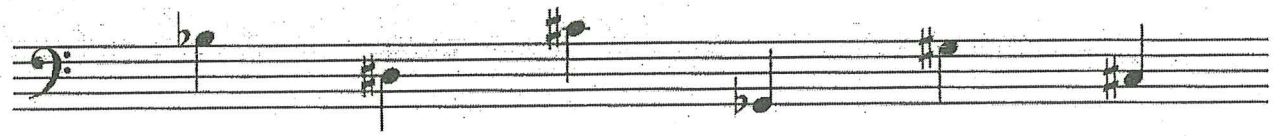
Quiz 24

Sharps and Flats – Two Clefs

DIRECTIONS: Write the correct note name under each note in the treble clef.

1. 

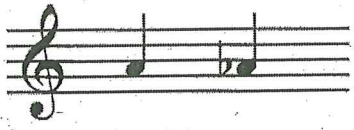
_____ _____ _____ _____ _____ _____

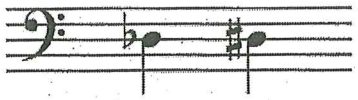
2. 

_____ _____ _____ _____ _____ _____

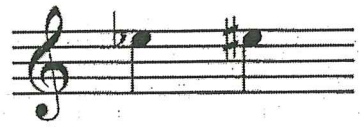
DIRECTIONS: Circle the note which is higher.

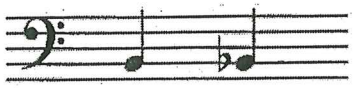
3. 

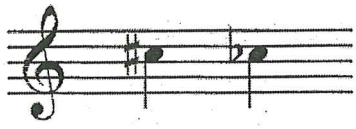
4. 

5. 

DIRECTIONS: Circle the note which is lower.

6. 

7. 

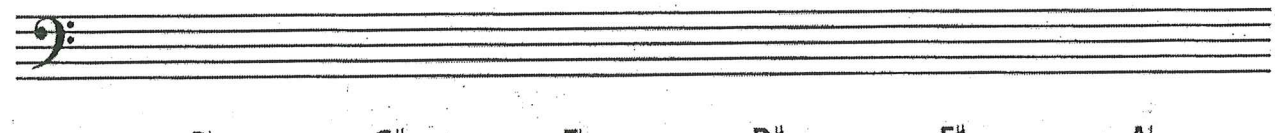
8. 

DIRECTIONS: Using quarter notes and accidentals, draw the following notes in the treble clef. Do not use ledger lines.
Note: There may be more than one correct answer.

9. 

A♭ F♯ D♭ C♯ B♭ G♭

DIRECTIONS: Using half notes and accidentals, draw the following notes in the bass clef. Do not use ledger lines.
Note: There may be more than one correct answer.

10. 

B♭ G♯ E♭ D♯ F♯ A♭

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MCMS NTI Physical Education Documentation Sheet

COMPLETE ONLY IF YOU CURRENTLY HAVE PHYSICAL EDUCATION

NTI Day	Activity	Minutes
Day 21		
Day 22		
Day 23		
Day 24		
Day 25		