



PLANNED INSTRUCTION LESSON MATERIALS

6th Grade

DUE DATE: FRIDAY, MAY 8TH

Please complete the following materials by the due date noted above.

Completed materials may be dropped off at the school (1006 West 10th Street) during food distribution Tuesdays and Fridays from 10:00am – 12:00noon, or turned in when the next week's materials are delivered to your home.

If you need assistance in completing the attached materials, please reach out to your classroom teacher via email, the school's website or Facebook page, or Class Dojo. You may also call the school directly Monday – Friday from 9:00am – 11:00am at 814-520-6468

Mrs. Veronica Will, Principal 814 873-5158

Mr. Aubrey Favors, Interim CEO 814 812-3026

A Liger's Tale



liger

What do you get when you cross a lion with a tiger? A liger, of course!

There are not a lot of ligers in the world, but one, named Hercules, made a big splash at Miami's Parrot Jungle Island in 2005.

"It's not something you see every day," the animal's owner, Bhagavan Antle, told New York's *Daily News*.

How did Hercules, who weighs more than 900 pounds, come to be? Back in 2002, his father, a lion, and his mother, a tiger, spotted each other at Antle's South Carolina animal preserve. It was love at first roar.

"We have a big free-roaming area at the preserve," Antle told the *New York Post*. "Sometimes lions and tigers are allowed to go out there and, lo and behold, one particular lion fell in love with one particular tiger and we had babies."

Four, to be exact: Hercules has three brothers-Vulcan, Zeus, and Sinbad.

What do ligers look like? A liger has a thick mane like that of a lion and stripes like those of a tiger.

When Hercules was three years old, he consumed 100 pounds of raw meat a day. He was able to run as fast as 50 miles per hour.

Does Hercules roar like a tiger or a lion? He has his dad's voice, although he swims like his mom. Like most lions, his dad doesn't enjoy the water.

There are no ligers in the wild. Several have been born in captivity, including in a zoo in Russia. That liger's name is Zita.

Ligers are rare because tigers and lions don't usually get along. "Normally the lion will kill the tiger," Antle said.

They established a wildlife preserve in the wetlands.

Spanish cognate

preservar: The Spanish word *preservar* means preserve.

These are some examples of how the word or forms of the word are used:

1. Canopic jars are special containers used to hold the **preserved** organs of the dead.
2. Paleontologists are always finding new squamate fossils. A fossil is the remains of an ancient plant or animal **preserved** in Earth's crust.
3. "This is one of the biggest traditional celebrations in Hong Kong," says Mason Hung, a Hong Kong Tourism Board senior manager. "It has been so **wellpreserved**."
4. As of 2013, construction of the athletic center was nearing completion. The building stopped whistling. However, the sound it made has been **preserved** on several recordings. The musical composer is thinking of turning the whistling into a new song.
5. By covering grass with cement, we may force the animals that live there to move into another area. It is important to understand that we have to work to **preserve** the habitat of the native plants and animals in order to keep the ecosystem healthy.
6. Some people would construct their houses with basements, so food could be kept cool there. Others built sheds that were used to store dried and **preserved** foods all year round. But there were certain items that needed to be kept cold-not cool or dry, but cold.
7. To combat the problem, some governments have designated certain stretches of cloud forest as protected, and it's illegal to clear or log them. This can help **preserve** cloud forests against mining companies and large commercial farmers. But it can be hard to enforce these rules against local populations.
8. Chances are, however, when you envisioned a swamp (or a marsh or a bog), you conjured up an image of a rather unpleasant place: creepy and shadowy, muddy, overrun with snakes and insects. Would it ever occur to you that this could be the kind of place we would want to save and **preserve**? Probably not.
9. How do we know that the mammoth existed? Scientists have found countless mammoth fossils, or bones, all over the world. In fact, scientists have even found very **wellpreserved**, or mummified, mammoth bodies in sheets of ice. These mummified remains are part of the reason scientists came to know exactly how hairy and woolly the mammoths actually were.
10. Because of overhunting and habitat loss, tree kangaroos are endangered. In 2009, after Dabek and her team spent 10 years working with hunters and landowners on the Huon Peninsula, the community set aside more than 70,000 hectares (173,000 acres) of forest for conservation. It's the first **preserve** of its kind in the country. People have agreed not to log, mine, or hunt tree kangaroos in the protected area, even though the animals are traditionally part of the local diet.

Name: _____ Date: _____

1. Based on the passage, which statement is not true about Hercules's family?

- A. His father is a lion.
- B. He has four brothers.
- C. He has no sisters.
- D. His mother is a tiger.

2. From the passage we learn that tigers like Hercules's mom

- A. do not like the water
- B. are good swimmers
- C. do not have stripes
- D. have thick manes

3. Based on the passage, you can conclude that ligers get their names because they have features

- A. mostly of tigers
- B. mostly of lions
- C. of both tigers and lions
- D. of tigers, lions, and parrots

4. Read the following sentence from the passage: "When Hercules was three years old, he consumed 100 pounds of raw meat a day."

In this sentence, the word "**consumed**" means

- A. caught
- B. ate
- C. threw
- D. cleaned

5. The primary purpose of the passage is to describe

- A. why Zita was born in a zoo in Russia
- B. why Hercules was visiting Parrot Jungle Island
- C. how Hercules's mother and father met
- D. the life of a rare liger named Hercules

6. At what speed was Hercules able to run when he was three years old?

7. Why are ligers like Hercules so rare? Cite specific examples from the article that support your answer.

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

Tigers and lions don't usually get along, _____ there are no ligers in the wild.

- A. but
- B. so
- C. because
- D. finally

Blank Quiz

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* Required

Based on the passage, which statement is not true about Hercules's family? *

5 points

- His father is a lion.
- He has four brothers.
- He has no sisters.
- His mother is a tiger.

From the passage we learn that tigers like Hercules's mom *

5 points

- Do not like the water
- Are good swimmers
- Do not have stripes
- Have thick manes

Based on the passage, you can conclude that tigers get their names because they have features *

5 points

- Mostly of tigers
- Mostly of lions
- Of both tigers and lions
- Of tigers, lions, and parrots



Read the following sentence from the passage: "When Hercules was three years old, he consumed 100 pounds of raw meat a day." In this sentence, the word "consumed" means *

5 points

- caught
- ate
- threw
- cleaned

The primary purpose of the passage is to describe *

5 points

- why Zita was born in a zoo in Russia
- why Hercules was visiting Parrot Jungle Island
- how Hercules's mother and father met
- the life of a rare liger named Hercules

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One of the world's first civilizations arose in North Africa thousands of years ago.

Ancient Egypt

Why was ancient Egypt important?

Egypt, in North Africa, was one of the earliest known civilizations. Egyptian civilization arose along the Nile River, and Egyptians depended on the Nile for their livelihood. They built cities, organized government, and invented a writing system to keep records and create literature.

The Rise of Egypt

People have been living along the banks of the Nile River for thousands of years. As many as 8,000 years ago, people settled in the area to farm. The rich floodwaters of the Nile allowed farmers to produce enough food to support a growing population. Over time, some members of this early society began to do other things besides farming. Some made pottery. Others crafted jewelry. Some became soldiers. A few became kings.

About 5,000 years ago, two kingdoms along the Nile were united into one. For most of the next 3,000 years, kings called pharaohs ruled the land. The great mass of people farmed the land. They paid a share of their crops to the government. The government's leaders also made them work on important projects, or planned activities. These projects included building temples and other monuments. Sometimes the people had to fight in the pharaoh's armies.

The Expansion of Egypt

For centuries, Egypt traded with nearby lands. Merchants carried Egyptian grain and other products to the south. There they traded for luxury goods like gold, ivory, and incense. They also traded to the east for wood from what is now Lebanon.

Around 1500 B.C., the Egyptians decided to expand their area. They took control of lands to the south that held gold and seized areas along the Red Sea that had myrrh. This plant substance gives off a pleasing scent. Priests burned it in religious ceremonies. Egypt also conquered the eastern shores of the Mediterranean. That gave them control of the timber there. Egypt's kings gained wealth by taxing conquered peoples.

Religion and Culture in Ancient Egypt

The pharaoh was the head of Egyptian society. He was seen as more than a man. He was thought to be the son of the sun god. The Egyptians practiced polytheism, which is the belief in many gods. The sun god was one of the most important of their gods. His daily journey through the sky brought the warmth needed to grow crops. The pharaoh, Egyptians believed, connected them to the gods. He made sure that they would flourish as a people.

Egyptians believed in life after death. Because of this belief, the pharaohs had vast tombs built for themselves. The tombs were filled with riches, food, and other goods. These goods were meant to support the pharaohs in the afterlife. When the pharaoh died, his body was preserved as a mummy and placed in the tomb.

At first the tombs were low structures built of bricks. Around 2600 B.C., the first pyramid was built as a tomb. These huge tombs, made of rock, were built by thousands of workers. Later, the pharaohs stopped building pyramids. Instead, workers carved their tombs out of rocky cliffs.

Historians know much about ancient Egypt because the Egyptians had a system of writing. The system, called hieroglyphics, used pictures to represent sounds or words.

Influence of Ancient Egypt

The Egyptians made many advances in mathematics and science. They used mathematics to measure farm fields and to figure out taxes. Their studies of the stars and planets led to advances in astronomy. They were masters of engineering as demonstrated by their great pyramids and temples.

Some of this knowledge was spread to other areas through trade and conquest. Later, Egypt had one of the world's earliest libraries. It was built in the 200s B.C., when Greece conquered and ruled Egypt. The library stored many important works of ancient literature.

Determining Central Ideas Why is it important to know about ancient Egypt?

The Middle Ages

How was North Africa connected to other areas?

Today, people use the Internet to contact each other anywhere in the world. In ancient times, people had to make contact in person. The people of North Africa used the Mediterranean Sea to make this contact with other peoples. Sometimes they were joined by trade. Other times they were joined by conflict.

Carthage and Rome

Western North Africa was first visited by other Mediterranean peoples in the 600s B.C. At that time, traders from what is now Lebanon sailed southwest across the Mediterranean. They built new settlements in many areas. One was a city in what is now Tunisia. They called it Carthage. Within about 200 years, the city had grown powerful. It controlled North Africa from modern Tunisia to Morocco. It also ruled parts of modern Spain and Italy.

In the 200s B.C. and 100s B.C., Carthage fought three wars with the Roman Empire. In the last war, Rome defeated Carthage and destroyed the city. Rome, then, came to control western North Africa. Eventually, Rome conquered Egypt, as well.

During Roman times, many North Africans converted, or changed, religions. Because the Roman Empire had adopted Christianity, many North Africans converted to this religion. Others followed their native religions. Except for religion, Roman rule had little effect on native North Africans. Most people continued to live as before. Millions of Berbers who live in western North Africa today are descended from these native people.

Rise of Islam

The Roman Empire fell in the A.D. 400s. Afterward, several local kingdoms formed in North Africa. In the A.D. 600s, though, a new influence emerged in the region. The religion of Islam was founded on the Arabian Peninsula by the prophet Muhammad in A.D. 632. Followers of this religion—called Muslims—began to conquer other lands. By A.D. 642, they had conquered Egypt. By A.D. 705, they ruled all of North Africa. Islam, like Judaism and Christianity, is a monotheistic religion. Monotheism means belief in just one god.

Islamic Rule

The Muslim empire was ruled by the caliph. This figure had political and religious authority. Caliphs had trouble keeping control over North Africa, however. By the A.D. 800s, separate Berber kingdoms had arisen in parts of the region. These kingdoms often fought one another. Some gained control of most of North Africa. Others only ruled parts of the area.

An Islamic group known as the Fatamids arose in Egypt in the A.D. 1000s. Its rulers expanded Cairo and made it their capital. The city became a center of Muslim learning and trade.

Islamic Culture

At first, Berbers and Egyptians resisted the Islamic religion. By the A.D. 1000s, though, most of them had converted. They also adopted the Arabic language. This language and Islamic learning linked North Africa to the Muslim world. It also helped unite the cultures and people of North Africa and Southwest Asia. Considerable similarities between the regions exist to this day, more than 1,000 years later.

Identifying Point of View Did the Roman or the Islamic empire have more impact on North Africa? Why do you think so?

The Modern Era

What leads people to revolt against a government?

North Africans formed their own countries in the late 1900s. In recent decades, these countries have changed in far-reaching ways. Often, unrest accompanied the changes.

Foreign Rule

In the 1500s, North Africa began to fall under the rule of foreign armies. The Portuguese and Spanish captured parts of Morocco. The Ottoman Empire, based in modern Turkey, took the rest.

The 1800s saw Ottoman power weaken and Europeans move into North Africa. France began to conquer Algeria in 1830. Although it took several decades, by the late 1800s France controlled that area and Tunisia, too. Some Europeans who settled in these areas grew wealthy. Muslim natives, though, were largely poor. In the early 1900s, France and Spain split control of Morocco. At about the same time, Italy seized Libya.

Egypt kept its independence for much of the 1800s. Its kings tried to build a more modern state. One of the accomplishments was completing construction of the Suez Canal in 1869.

The Suez Canal quickly became a vital waterway. Because of the canal's importance, though, other nations wanted to control Egypt. In 1882 Britain sent troops to Egypt. Kings continued to rule, but the British were the real power in the country.

Independence

Many North Africans resented European control. Independence movements arose across the region in the early 1900s. They gained strength after World War II. Italy had been defeated in the war, and France and Britain were severely weakened.

Egypt broke free of foreign control first. In 1952 a group of Egyptian army officers revolted against the king and the British. They created an independent republic, and they put the government in charge of the economy.

Algerians had to fight long and hard for independence. They rebelled against French rule starting in 1954. Not until 1962 did they succeed in ousting the French. Many Europeans fled the country after independence was achieved.

Military leaders also took control of Libya in 1969. They were led by Muammar al-Qaddafi. He remained in control of the nation—and its oil wealth—for more than 40 years. Tunisia and Morocco have avoided military rule. Tunisia has been a republic since gaining independence in 1959. Morocco has had a monarchy since gaining freedom from France in 1956.

Recent Decades

Independence has not always led to success for the countries of North Africa. Algeria has been plagued by unrest among Islamic political groups. Tunisia's government was often accused by the U.S. government of neglecting the rights of the nation's people. Libyan leader Qaddafi had a harsh regime, or style of government. Dissent was suppressed, and the government controlled all aspects of life. Qaddafi angered other nations by supporting terrorist groups.

Meanwhile, other problems built up in these nations. High population growth strained their economies. Corrupt governments fueled unrest. In recent years, Muslim fundamentalists have led a movement for the people and government to follow the strict laws of Islam. They also reject Western influences on Muslim society.

These problems came to a head in late 2010 in a series of revolts called the Arab Spring. The revolts began in Tunisia, where widespread unrest succeeded in convincing the longtime president to step down from power early in 2011. Tunisians celebrated as a new government took office.

Emboldened by this success, many Egyptians took to the streets. For more than two weeks, thousands of Egyptians turned out every day in Cairo and other cities to protest the government. This revolt also succeeded. In February 2011, Egypt's longtime president Hosni Mubarak gave up power. A group of officers took control and promised to create a new government run by civilians. In 2012 Egyptians voted in the first free presidential election in the country's history.

Unrest also arose in Morocco. There, the king agreed to several reforms that would give more power to the people.

The Arab Spring revolt also reached Libya. The government cracked down on protests. That response angered more Libyans. A civil war, or a fight for control of the government, broke out. After months of fighting, the rebels succeeded in taking control of the country. In October of 2011, they killed Qaddafi, and his remaining supporters gave up.

Determining Central Ideas How did the people of North Africa react to European control of the region? Compare that reaction to how North Africans reacted to rule by the Islamic Empire.

LESSON 2 REVIEW

Reviewing Vocabulary

1. How were the *pharaohs* of ancient Egypt and the *caliphs* of the Muslim empire similar? How were they different?

Answering the Guiding Questions

2. **Identifying Point of View** Why did the people of Egypt not revolt against the pharaoh even though they had to pay high taxes and work on major building projects?

3. **Integrating Visual Information** Look at a map of the world. What routes do you think the people of North Africa traveled to trade with the people of Southwest Asia in the Middle Ages?

4. **Determining Central Ideas** What has caused unrest in North Africa in recent years?

5. **Informative/Explanatory Writing** Write a summary of the events and results of the Arab Spring.

DIRECTIONS: Define the following vocabulary terms from Ch. 19 Lesson 2.

1. PHARAOH-

2. MYRRH-

3. HIEROGLYPHICS-

4. CONVERT-

5. MONOTHEISM-

6. CALIPH-

7. REGIME-

8. FUNDAMENTALIST-

DIRECTIONS: Answer the questions on pgs. 594-595.

1. What gained a lot of strength after World War II had ended?
2. Which country was able to gain independence first? Who did they gain independence from? (2 Answers)
3. Who did the Algerians have to gain their independence from?
4. According to the text, TWO countries avoided military rule. Who were they? (2 Answers)
5. The text says Qaddafi led a "Harsh Regime." Does that mean the people had it good or bad?
6. What is ONE thing that the Muslim Fundamentalists rejected throughout North Africa?

7. In 2012, what were Egyptians able to do, for the first time in their country's history?

8. The text said a civil war broke out in Libya. What were TWO results of the fighting.

Ch. 19 Lesson 2 Quiz

Answer the questions the best that you can.

* Required

A system of writing using pictures to represent sounds or words is known as: *

1 point

- English
- Hieroglyphics
- Cyrillic
- Symbol writing

Kings of ancient Egypt were known as: *

1 point

- Gods
- Lords
- Pharaohs
- Ministers

Believing in one God is known as: *

1 point

- Monotheism
- Polytheism
- The only way to worship
- Having a king



Figures who had political and religious power were known as: *

1 point

- Gods
- Ancestors
- Caliphs
- Christians

A substance taken from plants that smells: *

1 point

- Fruits
- Honey
- Syrup
- Myrrh

Which of the following statements about religion in ancient Egypt is accurate? *

1 point

- Ancient Egyptians believed the soul disintegrated into nothing after death.
- Ancient Egyptians practiced polytheism-the belief in many gods.
- Ancient Egyptians were called to prayer six times every day.
- Ancient Egyptians believed in one god- the pharaoh.

The followers of which religion ruled all of North Africa by the 700s? *

1 point

- Islam
- Judaism
- Christianity
- Buddhism



What was the first North African country to gain independence? *

1 point

- Algeria
- Morocco
- Libya
- Egypt

Which North African country did military leader Muammar al-Qaddafi control for 40 + years? *

1 point

- Egypt
- Libya
- Morocco
- Tunisia

Why did many foreign nations want to control Egypt in the late 1800s? *

1 point

- They wanted riches that were buried in the tombs of pharaohs.
- They hoped to gain control over Egypt's vast reserves of oil
- They wanted access to the recently built Suez Canal.
- They prized the rich agricultural fields of the Nile River delta.

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What is Energy?

May 4th - May 8th
6th Grade Science Lesson
Adapted from Pearson

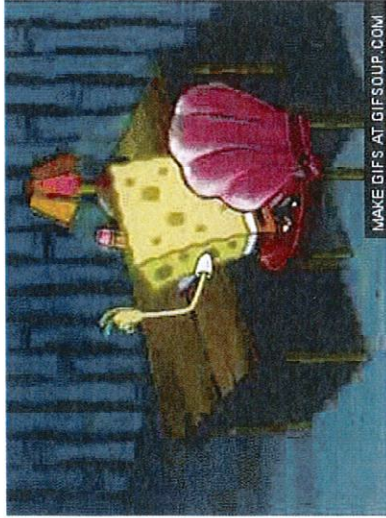
Energy

- **Energy** is the ability to do work (move) or cause change.
- When you do work on an object, some of your energy is transferred to that object. That object gains some energy.
 - For example, when you are riding a bike and your legs apply energy to the pedals, some of that energy transfers to the bike to help it move
- Energy is measured in **joules**.

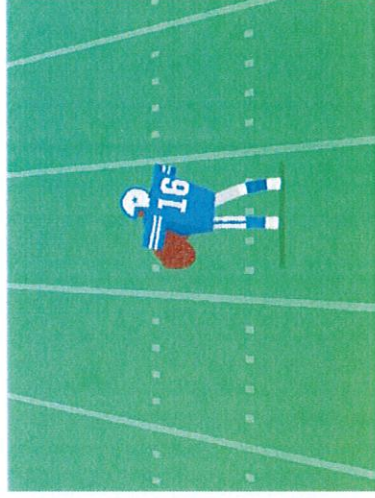


Everyday Examples of Energy

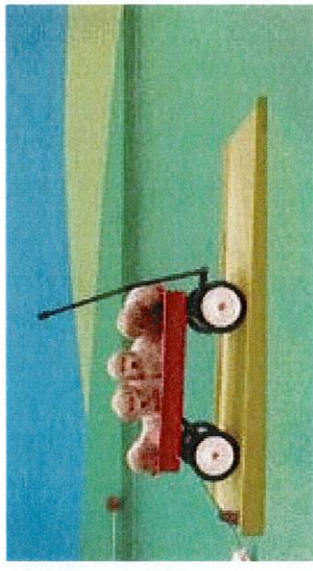
When you are writing with a pen, you did work on the pen.



When you are throwing a football, you did work on the football.



When you are pulling a wagon, you did work on the wagon.



Two Basic Types of Energy: Kinetic and Potential Energy

Kinetic Energy

- The energy an object has due to its motion is called kinetic energy
 - Things that are in motion have kinetic energy

Factors Affecting Kinetic Energy

- Speed
 - The faster an object moves, the more kinetic energy it has
 - Example:
 - Imagine you were hit by a football that was gently thrown at you. Now imagine that you were hit by a football that was thrown by an NFL quarterback. The ball thrown by the NFL quarterback will hurt more because they were able to apply more speed, meaning the football has more kinetic energy.
- Mass
 - The more mass an object has, the more kinetic energy it has
 - Example
 - Imagine you drop a ping pong ball on your foot. Now imagine you dropped a bowling ball on your foot. The bowling ball will hurt more because it has more mass, meaning the bowling ball has more kinetic energy.

Think?

If you threw a pillow and a brick. Which object would have the most kinetic energy when thrown? Why do you think that?

The brick would have more kinetic energy because it has a greater mass.

Think?

If one car was going 10 mph and then the same car went 80 mph, at what speed did the car have the most kinetic energy? Why do you say that?

The car going at 80 mph would have the most kinetic energy because it has a greater speed.

Potential Energy

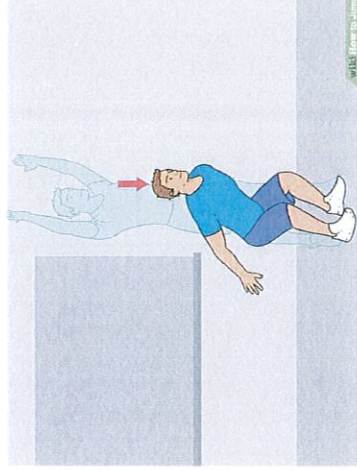
- Potential energy is energy that results from the position or shape of an object.
 - Objects that have this type of energy have the potential to do work

Everyday Examples of Potential Energy

A cell phone sitting on a table has the potential to move.



When you bend your legs and are just about to jump, you have potential energy.



When you hold a rock in your hand it has potential energy.

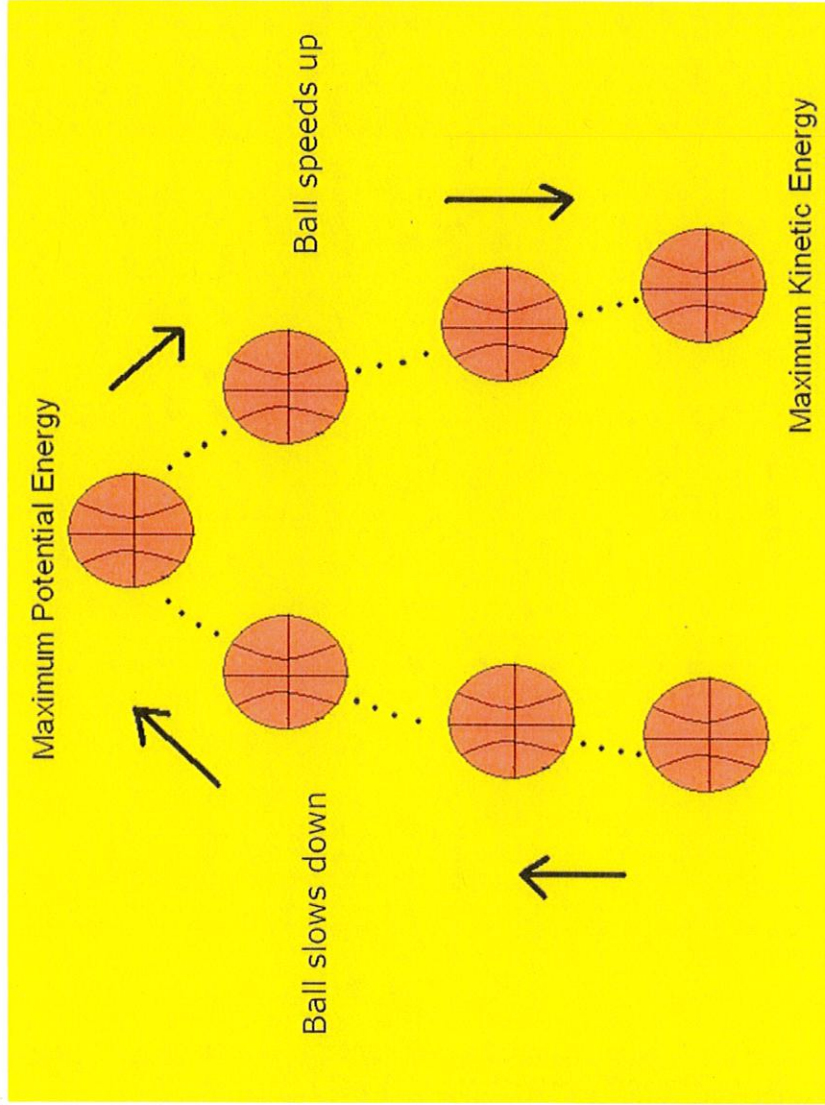


Kinetic and Potential Energy Simplified

- Kinetic Energy is energy of motion or moving
 - Objects that are moving have kinetic energy
- Potential energy is stored energy due to a position or state
 - Objects have the potential to move and change into kinetic energy

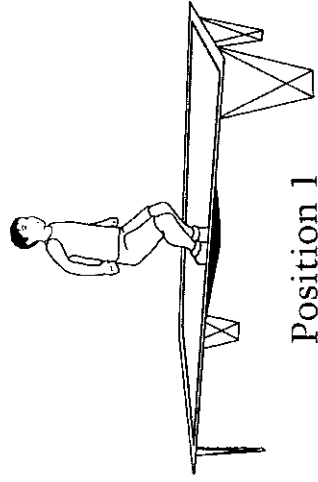
Kinetic and Potential Energy

Examples



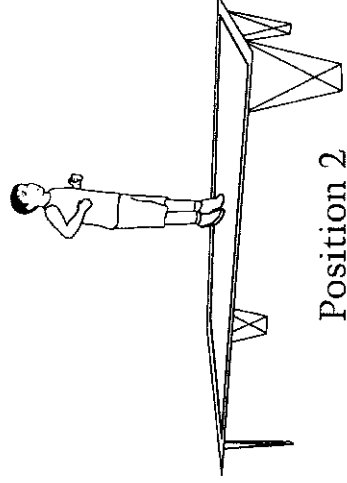
This picture shows a basketball being thrown into the air and falling to the ground.

When you throw the basketball it has kinetic energy. Once it reaches the highest it can go it has potential energy for a brief moment (maximum potential energy). When it falls back down it has kinetic energy again.



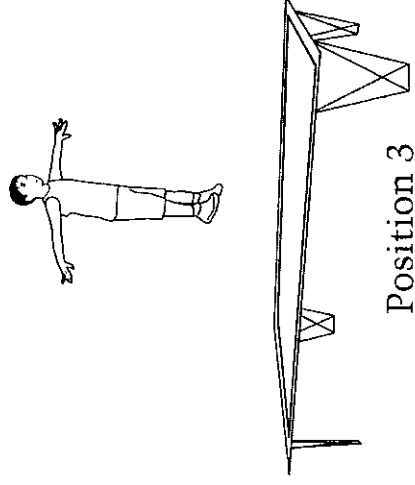
Position 1

He is at a standstill at the lowest point.



Position 2

His feet are moving off the trampoline.

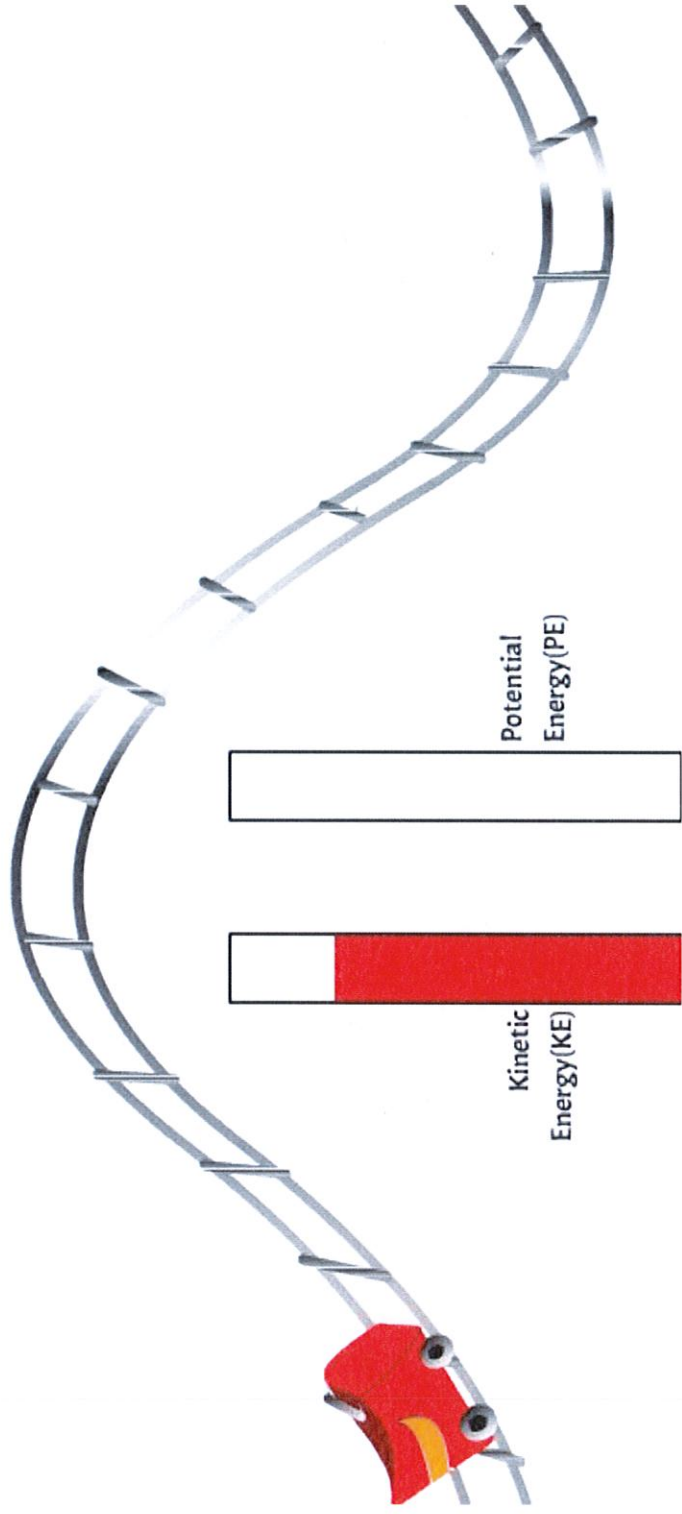


Position 3

He is up in the air at the highest point.

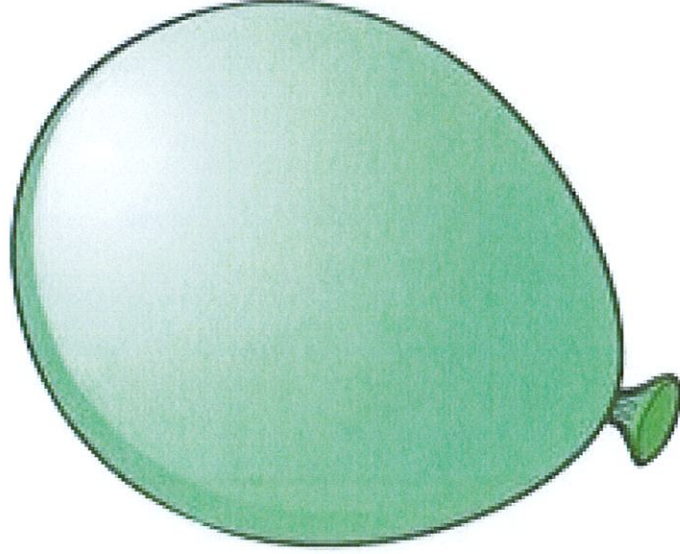
In position 1 the person has potential energy to extend their legs and move. In position 2 they have kinetic energy because they are moving upward. In position 3 they have potential energy for a brief moment as they hover in the air. When the person falls back down they have kinetic energy again.

Conversion of Energy

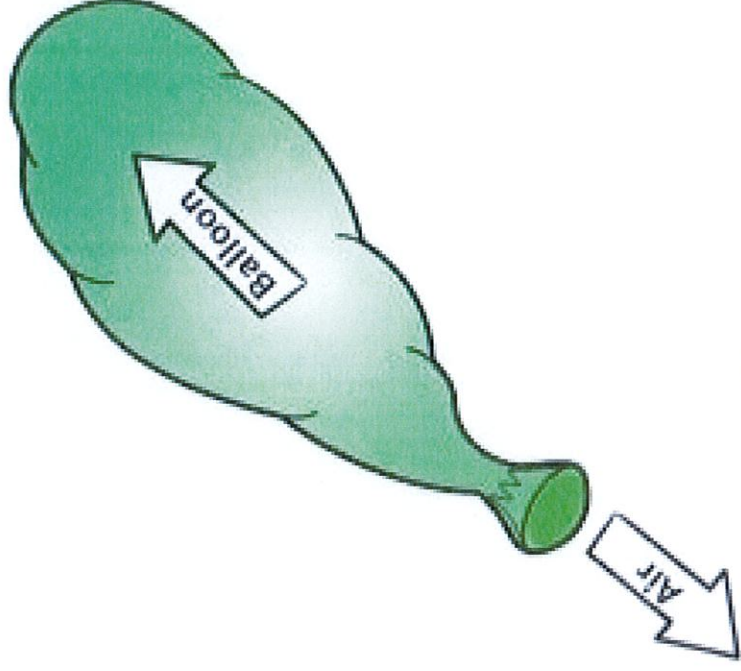


Potential and Kinetic Energy

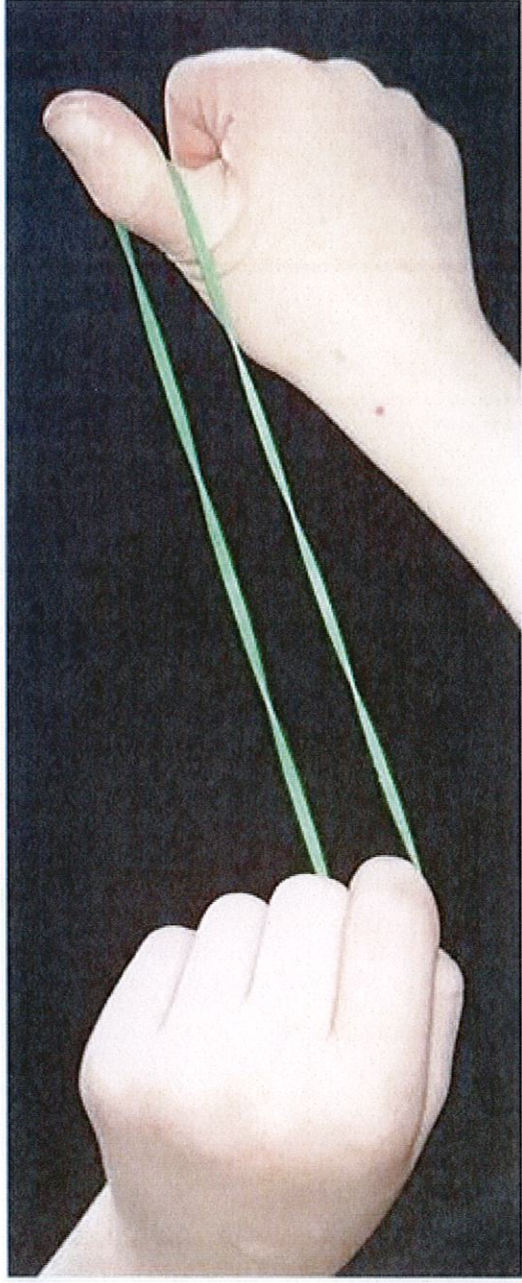
The picture shows a balloon inflated and it has potential energy. When you let go of the balloon it is moving and has kinetic energy.



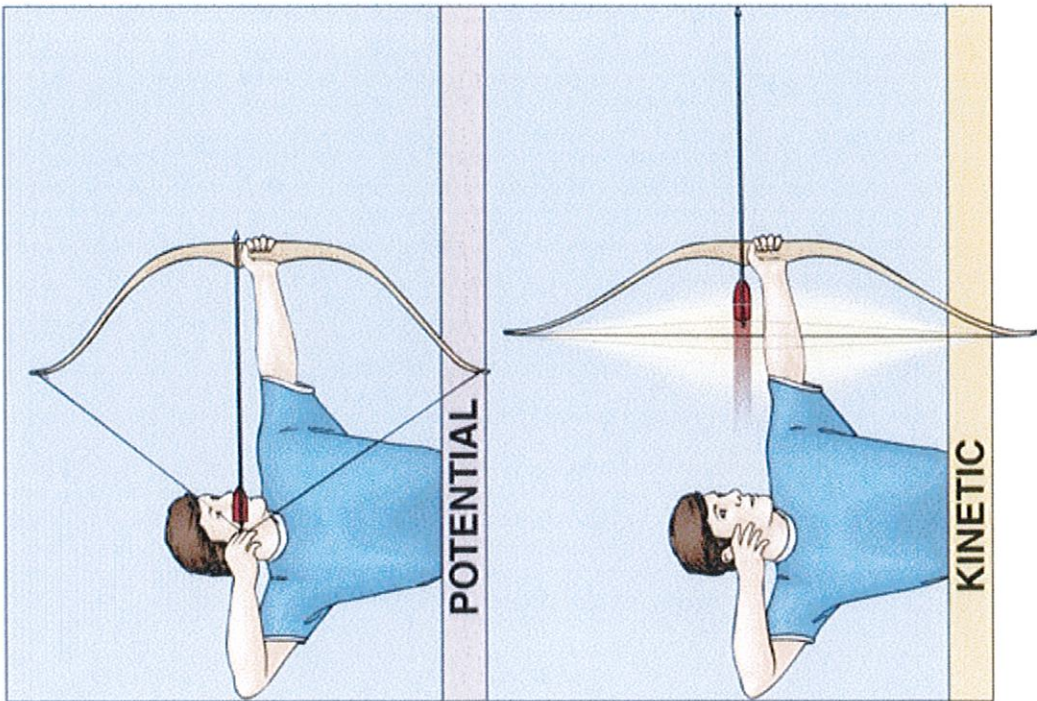
Potential energy



Kinetic energy



When you pull a rubber band back it has potential energy. When you let go of the rubber band it has kinetic energy.



When you pull back the arrow it has potential energy. When you let go of the arrow it has kinetic energy.

Kinetic and Potential Energy YouTube Video Questions

After watching the YouTube video, answer these questions! You can only complete this once, so make sure you take your time and try your best.

Your email address (vwill@erieriseacademy.org) will be recorded when you submit this form. Not you? [Switch account](#)

* Required

Gravitational potential energy _____ with height. *

1 point

- increases
- decreases
- stays the same

Based on the video an example of elastic potential energy would be _____.*

1 point

- rolling a basketball
- a book sitting on the table
- a spring moving back and forth

When he pulled the man in the red shirt back on the band what kind of energy was created ?

1 point

- kinetic
- potential



True or False On the International Space Station they are still under the influence of gravity. *

1 point

- True
- False

When in space what happened when he released the ball (filled with colorful beads) on the ramp? *

1 point

Your answer

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Kinetic and Potential Energy Lesson Check

Here is a chance for you to show me what you learned about kinetic and potential energy. You can only take this once so make sure you try your best and work hard!

Your email address (vwill@erieriseacademy.org) will be recorded when you submit this form. Not you? [Switch account](#)

* Required

True or False Energy is the ability to do work or cause change. *

1 point

- True
- False

Objects that are in motion have _____ energy. *

1 point

- Kinetic
- Potential

True or False An object that is moving slower will have more kinetic energy. 1 point

*

- True
- False



If you threw a pillow and a large rock, which object would have more kinetic energy? *

- pillow
- large rock

True or False Potential energy is when an object is already moving. * 1 point

- True
- False

Which choice is an example of potential energy? * 1 point

- swing going back and forth
- book sitting on a table
- dancing



The person in the picture is using a bow and arrow. Where do you see kinetic and potential energy when someone is using a bow and arrow? *

2 points



Your answer

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Teacher's Guide

CCSS 6.RP.A.1

Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."

Objectives

- Students will be able to match mathematical ratios with verbal expressions.

Materials

- Copies of mathematical ratios page (copy with logo on back)
- Copies of verbal expressions page (copy with logo on back)

(Recommend use of two different colors)

- Scissors and plastic baggies or elastics (for teacher prep)

Procedure

- Before students arrive, copy the following two pages. Students should work in groups of 2-4. Each group needs one set of 24 cards.
- Cut the cards out and keep each set separated using plastic baggies or elastics.
- Two ways to play:
 - For a quick version, have students lay cards face up and take turns finding a match.
 - For the full version, have students lay cards face down. Students should take turns flipping two cards at a time and looking for a match. (If two different colors are used, students should select one of each color.) If a match is found, the student keeps the two cards and may take another turn. If a match is not found, then the next player flips over two cards. The student with the most pairs at the end of the game is the winner.

2 : 1

3 : 1

4 : 1

5 : 1

3 : 2

5 : 2

4 : 3

5 : 3

5 : 4

7 : 4

6 : 5

7 : 5

2 wins for every 1 loss

3 slices of pepperoni
for every
1 slice of cheese

\$4 earned for every
\$1 spent

5 gray rocks for every
1 black rock

3 girls for every 2 boys

5 weekdays for every
2 weekend days

\$4 for 3 snacks

For every 5 students
with a pet dog,
3 do not have a pet dog

Jane earned \$5 for
every \$4 James earned

Jaden flipped heads
7 times for every 4 tails

Kayla read 6 books
for every 5 movies
she watched

\$7 for 5 minutes

Ratios and Proportional Relationships - 1

Five hundred sixth-grade students were surveyed. Of these students that were surveyed . . .

- 375 had been to a baseball game
- 270 own either a cat or a dog
- 125 had traveled on an airplane

1. What is the ratio of sixth-grade students who had traveled on an airplane to the total number of sixth-grade students surveyed?

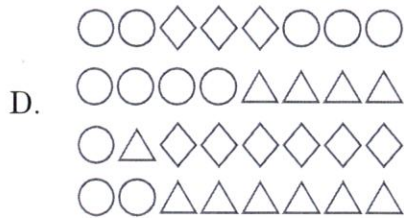
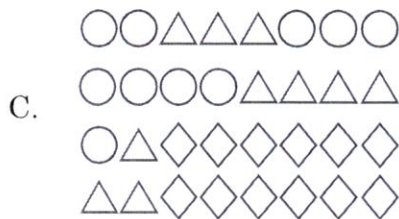
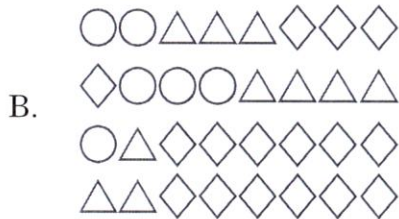
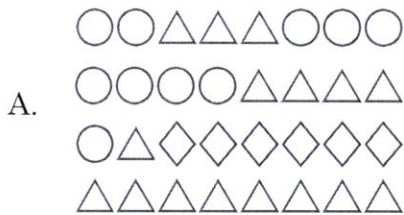
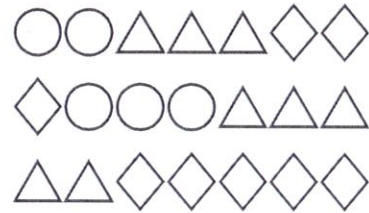
A. $125/500$, or $1/4$
B. $125/270$, or $25/54$
C. $125/375$, or $1/3$
D. $125/400$, or $5/16$
2. What is the ratio of sixth-grade students who own either a cat or a dog to the total number of sixth-grade students surveyed?
3. What is the ratio of sixth-grade students who had been to a baseball game to the number of students who had traveled on an airplane OR own either a cat or a dog?
4. Alicia made $2/3$ of the baskets she attempted in a basketball game. Which other ratio is equivalent to the number of baskets Alicia made?

A. 6:12
B. 8:12
C. 12:20
D. 18:20
5. Carlo correctly answered 36 out of 40 questions on an exam correctly. Which ratio is equivalent to Carlo's result?

A. 72:100
B. 76:100
C. 80:100
D. 90:100

Ratios and Proportional Relationships - 1

1. Camila is going to make a pattern using triangles, circles, and diamond shapes. The number of each shape that she uses will be in the ratio of eight triangles to five circles to three diamonds. Which of the following could be the pattern that Camila makes?



2. Which of the following is the ratio of circles to triangles in the above diagram?

- A. 1:4
- B. 3:7
- C. 2:5
- D. 5:8

3. Last month it rained 16 out of 30 days. Which ratio is equivalent to the number of days it did NOT rain last month?

- A. 32:60
- B. 8:15
- C. 7:15
- D. 6:3

Ratios and Proportional Relationships - 1

Five hundred sixth-grade students were surveyed. Of these students that were surveyed . . .

- 375 had been to a baseball game
- 270 own either a cat or a dog
- 125 had traveled on an airplane

1. What is the ratio of sixth-grade students who had traveled on an airplane to the total number of sixth-grade students surveyed?

A. $125/500$, or $1/4$
B. $125/270$, or $25/54$
C. $125/375$, or $1/3$
D. $125/400$, or $5/16$

2. What is the ratio of sixth-grade students who own either a cat or a dog to the total number of sixth-grade students surveyed?

$270/500$, or $27/50$

3. What is the ratio of sixth-grade students who had been to a baseball game to the number of students who had traveled on an airplane OR own either a cat or a dog?

$375/395$, or $75/79$

4. Alicia made $2/3$ of the baskets she attempted in a basketball game. Which other ratio is equivalent to the number of baskets Alicia made?

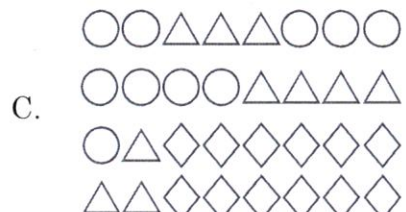
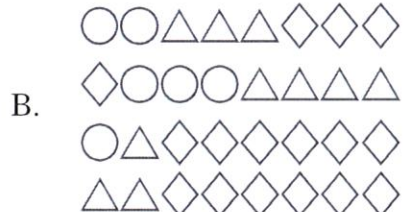
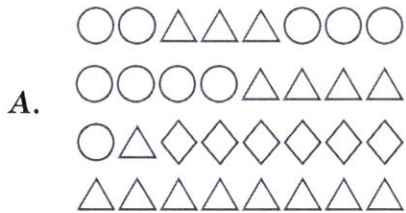
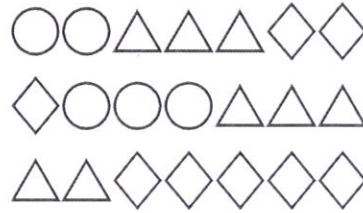
A. 6:12
B. 8:12
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5. Carlo correctly answered 36 out of 40 questions on an exam correctly. Which ratio is equivalent to Carlo's result?

A. 72:100
B. 76:100
C. 80:100
D. 90:100

Ratios and Proportional Relationships - 1

1. Camila is going to make a pattern using triangles, circles, and diamond shapes. The number of each shape that she uses will be in the ratio of eight triangles to five circles to three diamonds. Which of the following could be the pattern that Camila makes?



2. Which of the following is the ratio of circles to triangles in the above diagram?

- A. 1:4
- B. 3:7
- C. 2:5
- D. 5:8**

3. Last month it rained 16 out of 30 days. Which ratio is equivalent to the number of days it did NOT rain last month?

- A. 32:60
- B. 8:15
- C. 7:15**
- D. 6:3

Complete the proportion table below:

Miles 45

Hours 1 2 3 4 5

Dollars 3.30

Pounds 1 2 3 4 5

PART 2:

1. Which is the best deal?

Cheerios

48 oz. for \$3.99

36 oz. for \$2.59

12 oz. for \$1.99

2. Which is the best deal?

Diet Coke

12oz. for \$.99

64oz for \$2.99

128 oz \$4.99

3. How many miles will your parents drive in eight hours if they are traveling 65mph?

4. In a bag of blue and yellow candies, the ratio of blue candies to yellow candies is 3:5. If the bag contains 60 yellow candies, how many blue candies are there?

5. A room is 16 feet, 8 inches long, and the ratio of the length to the width is 4 to 5. What is the width of the room?

6. A school has 300 students. If the ratio of boys to girls is 31 to 44, how many more girls are there in the school?
7. The basketball game had 500 people in attendance. If the ratio of Hawk fans to Cyclone fans is 2:10, how many more Cyclone fans were there?

8. There were 420 birds migrating to the south in the sky this morning. If the ratio of Godwits to Geese in the sky this morning was 20:40, how many more Geese were in the sky?

9. There were 600 soldiers in the battle. The ratio of Texas soldiers to Mexican soldiers was 7:3, how many more Texan soldiers were in the battle?

10. I purchased the red & green Mm's for the holidays. There were 1800 Mm's in the bag. Surprisingly, the ratio of red Mm's to green Mm's was 4:5. How many less red Mm's were there in the bag?

11. The ratio of Jessica's stickers to Rod's stickers is 7:4. Jessica has 21 stickers. How many stickers does Rod have?

12. My grandma's secret recipe requires 14 eggs for every 4 cups of flour. How many eggs will I need if I use 16 cups of flour?

13. The ratio of the length of a rectangle to its width is 6:5. Its length is 24 inches. What is its width?

14. The ratio of the length of Joey's rope to Chad's rope is 16:6. Joey's rope is 112 cm long. How long is Chad's rope?