

MCMS
7th Grade
NTI Packet
Day 12

MCMS

7th Grade Math

NTI Day #12

Name _____ Date _____ Class _____

LESSON 1-11

Puzzles, Twisters & Teasers

Clean Solutions!

Find the solution for each equation below. Write the letter of each variable on the line above the correct answer at the bottom of the page to solve the riddle.

1. $y - 35 = 17$ ____
2. $h - 40 = 26$ ____
3. $a + 16 = 43$ ____
4. $110 = e + 66$ ____
5. $97 = w - 44$ ____
6. $n - 8 = 3$ ____
7. $356 = g - 218$ ____
8. $652 + t = 800$ ____
9. $16 = o - 124$ ____
10. $63 + m = 903$ ____
11. $k + 18 = 98$ ____
12. $d - 27 = 54$ ____
13. $c - 50 = 23$ ____
14. $l - 62 = 937$ ____



Why did the robber take a shower?

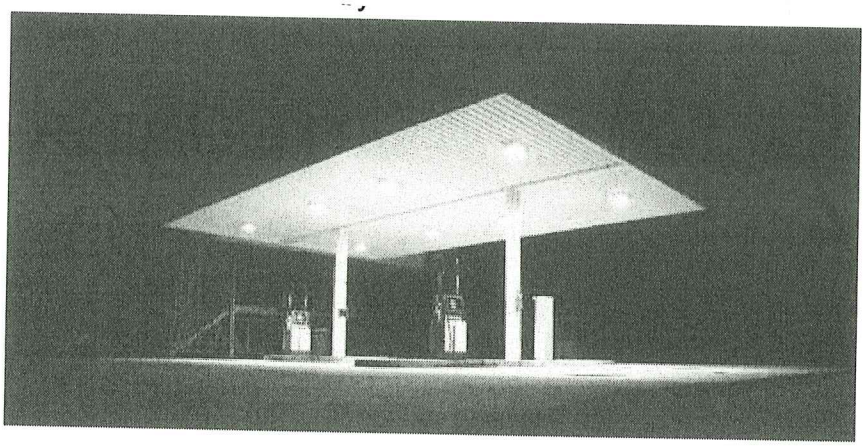
___	___		___	___	___	___	___	___		___	___
66	44		141	27	11	148	44	81		148	140

___	___	___	___	___	___	___	___	___	___	___
840	27	80	44	27	73	999	44	27	11	

___	___	___	___	___	___	___	.
574	44	148	27	141	27	52	

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Refueling [The Run Series, #2]



The swarm of crazed people was rushing toward them. Mac turned the keys in the truck's ignition. The engine sputtered but refused to turn on. "Try again," said Dennis. Mac turned the keys again. Again the engine coughed, and the emergency lights flickered before it cut out. Mac tried to stay calm, but he felt a wave of cold panic.

"Keep trying the engine," said Dennis. "I'll hop out and try to push the truck to start."

Dennis jumped out of the truck and ran to the back. He shoved the truck's bumper, pushing all of his weight against the vehicle. Inside the truck, Mac kept turning the key in the ignition. Dennis could hear the angry roar of the mob as they grew closer. Dennis gave one final push and felt the truck move. He scrambled into the truck's bed. "Go, go, go!" he screamed at Mac.

Mac turned the truck into a U-turn. The wheels screeched as the back of the truck swung around. In the truck's bed, Dennis directly faced the people running at them. He no longer needed binoculars to see their wild eyes. The crowd was only twenty feet away.

"Go!" Dennis screamed again, and Mac slammed on the gas. The truck sped forward, and Dennis clung to the sides of it to keep from falling off the back. He was drenched in sweat, and his hands were still shaking.

Mac and Dennis drove back the way they had come, away from the city and the hordes. Once they had driven far enough that they thought it was safe to stop, Mac pulled over to the side of the road. He paused the truck just long enough for Dennis to jump back into the passenger seat.

"Were those zombies?" asked Mac.

"I don't know," said Dennis. "Whatever they were, they didn't seem completely human. That must be what the plague does to people."

The young men talked over their next move as they drove. Big cities seemed dangerous, but the small towns were abandoned. Should they head back to the ranch? Go deeper into the wilderness? Or try to find other survivors who were also on the run? There was no easy answer. No matter what decision they

made, it would be risky.

"Let's stop at the next gas station and fill up some extra containers," said Mac. "We need to get more gas. I don't want to be low on fuel the next time we come across a group like that." Dennis stared out the window silently. He was hoping they would never come across a group like that again.

They passed a gas station a few miles down the road. They approached the gas station slowly, checking for signs of life, but there were none. Dennis hopped out and opened the gas cap. The gas pump seemed to be working, so he filled up the truck's tank. Once the tank was full, Dennis began filling up extra containers and putting them in the truck's bed.

Mac decided that he would go inside the gas station to look for additional food and supplies. They still had some cornbread and apples from the ranch, but he didn't know when they would be able to stop again. Mac was beginning to realize that life as he knew it was over. They needed to be ready to survive.

"I'm going to head inside to find extra food," Mac said to Dennis. "Here are the keys to the truck. Be ready to get in and drive away quickly if we have to make a fast escape."

Dennis nodded and took the keys. "Be careful, Mac," he said. "Who knows what you'll find in there."

Mac opened the door to the gas station slowly. The inside was dark and silent. "Hello?" he called, "Anybody there?" Mac flipped a switch on the wall, and fluorescent lights flickered on. He looked around at the empty store. There were signs of a struggle. Bags of chips and candy were trampled on the floor. One of the glass refrigerator doors had been torn off its hinges. Mac stood, holding his breath, listening. All he heard was the hum of the refrigerators and the sound of Dennis filling up outside.

Mac grabbed a few plastic bags from the counter. He filled them with enough supplies for a few more weeks: trail mix, bottled water, medicine, granola bars, and jars of peanut butter. Mac wondered if he should pay for these things. He wasn't sure if the owner of the gas station was even alive, and Mac and Dennis might need the money later. Then, Mac remembered Ann Greerson's goodbye back at the ranch. She had told them to remember their manners. Mac didn't want to let her down. He reached into his wallet and found a twenty-dollar bill. He had just placed it on the counter, when he heard a sound behind him. Mac froze. He wasn't alone in the store.

Outside, Dennis had filled up six containers with gasoline. He climbed into the front seat and put the keys in the ignition. He turned on the radio, but all he could find was static. Dennis kept moving the dial and searching for a station. Suddenly, the static cleared, and he heard a voice.

"Is anyone out there?" the voice said. It was a girl's voice. "My name is Anna Johnson. This is my father's radio kit. He's gone now. The plague arrived in Sunnydale one week ago." The girl's voice shook with sobs. "I just want to know if there's anyone else out there. Anyone who's still human." Dennis felt horrible for her. He and Mac had each other, but Anna was all alone. Dennis looked at the clock. It had been fifteen minutes. He felt uneasy; it shouldn't have taken Mac this long to grab a few supplies.

Suddenly, he heard his name. "Dennis! Dennis!" Mac was crying out for him from inside the store. Dennis jumped out of the truck and ran toward the entrance.

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Ed.: *The tale continues in Part 3, "Searching for Survivors."*

Name: _____ **Date:** _____

1. Who is rushing toward Mac and Dennis at the beginning of the story?

A. a swarm of crazed people

B. a woman named Ann Greerson

C. a girl named Anna Johnson

D. the owner of a gas station

2. Where does the second half of this story take place?

A. two miles outside a big city

B. in and around a gas station

C. at a ranch

D. deep in the wilderness

3. Read these sentences from the text.

Were those zombies?' asked Mac.

'I don't know,' said Dennis. 'Whatever they were, they didn't seem completely human.'

What evidence from the story supports the idea that the people Mac and Dennis saw were not "completely human"?

A. There were a lot of them.

B. They were "only twenty feet away" from Mac and Dennis.

C. They were "crazed" and had "wild eyes."

D. They were running toward Mac and Dennis.

4. Read these sentences from the text.

The young men talked over their next move as they drove. Big cities seemed dangerous, but the small towns were abandoned. Should they head back to the ranch? Go deeper into the wilderness? Or try to find other survivors who were also on the run? There was no easy answer. No matter what decision they made, it would be risky.

Based on the information in the story, why might any decision the young men make be risky?

A. They do not have much experience driving long distances at night.

B. They do not know whether they can trust the girl who says her name is Anna Johnson.

C. They have no map and do not know how to get back to the ranch.

D. Wherever they go, there is a chance they will come across more "crazed people."

5. What is the main idea of this story?

A. A girl named Anna Johnson uses her father's radio kit to ask whether anyone "who's still human" is out there.

B. Two young men barely escape a crowd of people rushing toward them.

C. Mac enters a gas station and fills plastic bags with trail mix, bottled water, medicine, granola bars, and jars of peanut butter.

D. Two young men are trying to survive in a world where almost everyone seems to have gone crazy.

eserved.

6. Read these sentences from the text.

The young men talked over their next move as they drove. Big cities seemed dangerous, but the small towns were abandoned. Should they head back to the ranch? Go deeper into the wilderness? Or try to find other survivors who were also on the run? There was no easy answer. No matter what decision they made, it would be risky.

Based on these sentences, what does the phrase "on the run" mean?

A. trying to help people

B. trying to win a race

C. trying to hurry up

D. trying to escape or hide

7. Read these sentences from the text.

Mac flipped a switch on the wall, and fluorescent lights flickered on. He looked around at the empty store. There were signs of a struggle. Bags of chips and candy were trampled on the floor.

How could the last two sentences here be rewritten to show the relationship between them?

A. There were signs of a struggle. Meanwhile, bags of chips and candy were trampled on the floor.

B. There were signs of a struggle. For example, bags of chips and candy were trampled on the floor.

C. There were signs of a struggle. On the other hand, bags of chips and candy were trampled on the floor.

D. There were signs of a struggle. Ultimately, bags of chips and candy were trampled on the floor.

8. Read these sentences from the text.

Mac didn't want to let her down. He reached into his wallet and found a twenty-dollar bill. He had just placed it on the counter when he heard a sound behind him. Mac froze. He wasn't alone in the store.

What evidence supports the statement that Mac "wasn't alone in the store"?

9. Why does Dennis jump out of the truck and run toward the gas station at the end of the story? Support your answer with evidence from the text.

10. Who or what might be inside the store with Mac? Support your answer with evidence from the text.

rved.

Name: _____ Date: 7th Science

Energy Transformation Reading Passage

NTI 12 (1 page)

ENERGY TRANSFORMATION

Energy can transfer from one object to another and from place to place. It can also be converted from one form to another. The conversion of energy from one form to another is called **energy transformation**.

During energy transformation, energy is not created or destroyed. Some or all of the energy from one object is transformed into another form during energy transformation. For example, wind has mechanical energy. A windmill harvests this energy and transforms it into electrical energy. A bouncing ball has mechanical energy. Some of the mechanical energy is transformed into sound energy, which you hear, when the ball bounces on the ground. Gasoline has chemical energy. When gasoline is burned in a car engine, chemical energy is released, harnessed and transformed into mechanical energy of a moving automobile.

Electricity or electrical energy is often studied when learning about energy transformation because electrical energy is converted into many different forms by different types of appliances and devices. Lamps use and convert electrical energy into light energy, radios use and convert electrical energy into sound energy and ovens use and convert electrical energy into thermal energy. Can you think of other ways electrical energy is transformed?

Questions

1. What is energy transformation?
2. What happens to the total amount of energy during energy transformation?
3. How is energy transformation different from energy transfer?
4. Give examples of energy transformation.
5. The reading provides examples of how electrical energy is transformed. Provide at least one additional example of how electrical energy is transformed.

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Arachne the Weaver

by ReadWorks



illustration of Arachne

It may seem difficult to take Greek myths seriously. After all, they tell of angry gods, dueling goddesses, snake-haired women, and beasts consisting of both animal and human parts. But mythology was a significant influencing factor in the day-to-day lives of the people of ancient Greece. They didn't have televisions or the Internet. There was no Google then, no encyclopedias, and no way to look some piece of information up quickly and learn it. Instead, the ancient Greeks turned to stories and legends to understand how the world around them operated. They used myths to explain the things they didn't understand, like thunder and earthquakes. And they used myths to make scary things seem less frightening. Over time, myths changed, and their events and details varied from one telling to the next, but their narrative outcomes remained largely the same.

Mythology, in the time of ancient Greece, was used not only to explain various phenomena that we now understand via scientific truths, but to account for the origins of humankind. It answered questions like, "What happens after death?" and, "Why does humanity exist at all?" Myths were also often entertaining, and sometimes humorous and intriguing; remember that there weren't TV episodes or movies in ancient Greece, so people had to entertain themselves in other ways. But more than that, myths told people how to live, and how to tell right from wrong. These stories included morals intended to teach valuable life lessons and instill ethics in their readers.

Take, for instance, the story of Arachne. Arachne was a young girl famed in her region for her spinning and weaving. Her cloth was said to be the softest and fairest of any in the land-so fine that

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some believed it to be spun from gold. Because of her skills, Arachne was prideful. She thought herself the best spinner and weaver in the world, and she was certain that no one could match her talents and gifts.

One day, an old woman walked past Arachne weaving on her loom and asked her, "Who taught you to weave so well?"

Arachne replied that she had taught herself, and that she was the best spinner and weaver in the world.

"But perhaps Athena, the goddess of craft and weaving, taught you to spin and weave without your knowing it?"

Arachne, in her vanity, replied, "No, not even Athena is as good as I am."

The old woman then tore away her disguise and revealed herself as Athena. She was enraged that a mortal could be boastful and would dare to compare herself to a goddess. And so, Athena challenged Arachne to a spinning and weaving contest. The rules of the contest were simple: each woman would weave a tapestry, and Zeus, king of the gods, would act as the judge. If Arachne won, Athena would never weave again. And if Athena won, Arachne would never spin or touch a loom for the rest of her life.

Hundreds gathered to watch the two women weave. Arachne wove a cloth from the finest silk. It was said that the cloth was so fine it could barely be felt, but that it had the strength to hold a hundred men. On the cloth, Arachne depicted the failings of the gods, portraits of the gods acting immorally and foolishly.

Athena, on the other hand, is said to have spun with sunbeams, the sky, the fields, and the clouds. She wove a tapestry that showed the gods in all their strength and glory, praising them for their splendor.

It was obvious that Athena's cloth was more spectacular than Arachne's. Even Arachne, upon seeing Athena's tapestry, hid her face in her hands in shame.

In one version of the myth, Athena shredded Arachne's cloth into pieces when she saw how the girl had insulted the gods. But both women knew who the victor was, and Arachne realized that she would never be able to touch a loom again.

Ashamed and devastated at her loss, Arachne attempted to kill herself. Athena, taking pity on Arachne, stopped her. Athena insisted that Arachne remain true to her word and never again spin or touch a loom. Athena then transformed her into a spider so that she could continue to spin and weave beautiful tapestries. All spiders, in Greek mythology, are said to be the children of Arachne.

This particular Greek myth served to warn against the dangers of pride and vanity, as well as caution those seeking to compete against or humiliate the gods.

Name: _____ **Date:** _____

1. What did the ancient Greeks turn to in order to understand how the world operated?

A. books and encyclopedias

B. gods and goddesses

C. stories and legends

D. rulers and laws

2. What does the author describe in the article?

A. the role of mythology in ancient Greece

B. the importance of theater in ancient Greece

C. the origins of humankind according to Greek mythology

D. how ancient Greek myths changed over time

3. "[M]ythology was a significant influencing factor in the day-to-day lives of the people of ancient Greece."

What evidence from the text supports this statement?

A. "Myths were [...] sometimes humorous and intriguing[.]"

B. "[M]yths told people how to live, and how to tell right from wrong."

C. "[The ancient Greeks] didn't have televisions or the Internet."

D. "Over time, myths changed, and their events and details varied[...]"

4. Based on the story, how can Arachne be described?

A. Humble and kind

B. Clever and generous

C. Talented and insecure

D. Vain and disrespectful

5. What is a main message of the story of Arachne?

A. The gods are immoral and foolish.

B. People should keep their talents secret.

C. People should not be vain or prideful.

D. Gods and humans are equally talented.

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6. Read these sentences from the text.

"On the cloth, Arachne **depicted** the failings of the gods, portraits of the gods acting immorally and foolishly.

"Athena, on the other hand, is said to have spun with sunbeams, the sky, the fields, and the clouds. She wove a tapestry that showed the gods in all their strength and glory, praising them for their splendor."

As used in this sentence, what does "**depicted**" mean?

A. praised
B. showed
C. prayed to
D. warned about

7. Choose the answer that best completes the sentence.

Athena challenged Arachne to a spinning and weaving contest _____ she was enraged that Arachne dared to compare herself to a goddess.

A. however
B. although
C. because
D. therefore

8. What did Athena do to Arachne at the end of the story?

9. The text says that the myth of Arachne "served to warn against the dangers of pride and vanity[.]" How does the story of Arachne demonstrate the dangers of pride and vanity? Use details from the story to support your answer.

10. Based on the myth of Arachne, how were the ancient Greeks supposed to live their lives? Use evidence from the text to support your answer.