

A Diplomat's Son

By ReadWorks

NTI DAY #9
14th Day Missed

"Attention, passengers. We have now started our initial descent..."

Matt's father tapped his shoulder. "Matt? We're about to land." Matt pulled off his headphones, just in time to hear the flight attendant repeat the pilot's words in Spanish. He pulled up the window shade to look out. For miles and miles, all he could see were buildings, a landscape of white and gray concrete, with the occasional green splash of a soccer field.

"This is it?" Matt asked his father. His dad nodded. "Welcome to Mexico City."

Matt's father had been assaulting him with facts about Mexico City for the past several weeks in an attempt to excite Matt about the move: "Mexico City is the most populous city in the Western hemisphere. The city is constantly sinking, since it was built atop a lake. There are over 600,000 Americans living in Mexico City." That last one was supposed to help, to make him feel more at home. But by now Matt had given up on ever feeling at home anywhere. He'd only lived in the United States for four years of the last fifteen—he didn't understand why Americans should make him feel at home when they were still strangers to him.

This was the life of the son of a Foreign Service officer. Matt's father had been a diplomat since before Matt was born. By the time Matt was ten, he'd lived in five different countries. It was the same every time: move to a place, start at the American school with all the other children of diplomats and expatriates, make a few friends—and then just as you begin to feel comfortable, pack up and move on to the next. Matt didn't complain much because what would be the point of complaining? He had never known what it was to live in just one place, and perhaps he wouldn't even like living in the same spot for more than two years. They had spent some time in Washington, D.C., after his father's tour in Thailand, and the experience had been disorienting. Matt's ears were unaccustomed to so much English. He felt invisible, unremarkable, and just like another American, like the rest. He was still unsure of whether he liked the feeling of being inconspicuous or not.

Matt felt the plane jostle and realized they were touching down. Twenty short minutes later (diplomats are permitted to skip the normal waiting lines), he and his father were speeding in a car toward the center of the city. Finally they pulled in front of a tall building on a shady street. Matt stepped out of the car and felt the air, warm and muggy, press down on him. Beads of sweat formed on his forehead and stayed there like protesters, refusing to evaporate. He looked around as his father tipped the driver. Tall trees lined the roads, and the sidewalks were full of people dressed in suits.

"This is Polanco," said his father. "It's close to the embassy and your school. It's also one of the safest neighborhoods in Mexico City. You'll be able to go out on your own here, bike in the streets, and maybe hang out with friends. Do you like it?"

Matt picked up the anxiety in his father's voice and gave the response that was expected of him: "It looks great, Dad."

They took their bags up to the apartment, where all of their old furniture was already waiting for them. His father had shipped it ahead of time so that the space would feel familiar. Matt climbed to his room and threw himself down on the bed. There would be plenty of time for unpacking suitcases later. He stretched out and was about to close his eyes when he heard the sound of music coming from outside.

His window looked over a courtyard that was shared with the inhabitants of the other apartments. There was a grill and a few people lounging on chairs. Someone had brought speakers, which meted out a quick salsa beat. Matt watched, fascinated, as the people got up from their lounge chairs. They cleared them to the side, creating an open space. Then they began to dance. The music was fast but the dancers were faster. Their arms, hips, and feet all moved in time to the music.

Matt watched one dancer in particular. She looked fifteen or sixteen, about his age. She wore a black dress that followed her movements and swirled every time she turned. She was magnetic. Matt was especially taken in by the white flower tucked behind her right ear. How did she manage to keep it there, while performing all of those twists and turns?

Suddenly, there was the light pressure of a hand on Matt's shoulder. His father had come into the room and was standing beside him, also watching raptly. "There are a lot of young people in this building," said his dad. "I thought that'd be a good thing."

Matt nodded, still silently gazing down at the girl. The music had shifted to a slower bachata and she was dancing now with a partner, a boy who was stumbling to keep up with her steps. Matt thought he could probably do better than this guy.

"Ahem," Matt's father cleared his throat. "I know...I know it's been difficult moving so much, especially with your mom gone. But I hope this hasn't been too hard on you."

Matt squeezed his dad's hand. "Don't worry, Dad. You've done fine."

His father, seemingly relieved, left the room with a wave. Matt stayed at the window. The song had ended and the dancers were taking a pause. The girl in the black dress, perhaps feeling someone's eyes on her, glanced up at the window. She saw Matt and flashed a smile. Matt grinned back, and felt, if not at home, that he was somewhere not so unrecognizable.

Name: _____ Date: _____

1. Why are Matt and his father moving?

2. Where does this story take place?

3. Matt observes one of the girls dancing in the courtyard. When she looks up at Matt and smiles at him, Matt grins back as well. He feels that he is somewhere not so unrecognizable. What can be concluded about Matt's interest in the dancer?

4. How does the dancing girl affect how Matt feels about Mexico City?

5. What is this story mainly about?

6. Read the following text from the passage.

"Matt watched one dancer in particular. She looked fifteen or sixteen, about his age. She wore a black dress that followed her movements and swirled every time she turned. She was magnetic. Matt was especially taken in by the white flower tucked behind her right ear. How did she manage to keep it there, while performing all of those twists and turns?"

"Suddenly, there was the light pressure of a hand on Matt's shoulder. His father had come into the room and was standing beside him, also watching raptly."

Based on this text, what does the word "raptly" suggest about the way Matt and his father are watching the dancers?

7. What word or phrase best completes the sentence?

Matt is not particularly excited about living in Mexico City _____ he sees a girl dancing in the courtyard of his apartment building.

8. (1) Matt's father tries to make him feel excited and at home in Mexico City, but Matt feels like he's given up on feeling at home anywhere. (2) Matt and his father's moves have fallen into a pattern where, "Just as you begin to feel comfortable, [you] pack up and move on to the next [place]." (3) When Matt's dad asks about how he likes the neighborhood, Matt gives "the response that was expected of him" – that it looks great.

Based on this evidence, how does Matt probably feel about having to move every couple of years because of his father's work?

9. What is Matt's outlook on the move to Mexico City by the end of the story?

10. Why might seeing one of the girls dance in the courtyard of his apartment building change Matt's feelings about moving to Mexico City? Use evidence from the text to support your answer.

Radiation: What You Need to Know

By Kathiann M. Kowalski

Nuclear radiation can affect our health—for better or worse.

You might not know exactly how to describe it, but chances are good that you know the word *radiation* can have two very different connotations. On the one hand, radiation exposure was one of the most feared consequences after an earthquake and a tsunami dam-sequence damaged a nuclear reactor in Japan back in March 2011. On the other hand, radiation may have helped someone you know fight a disease such as cancer. How can one word have such different meanings?

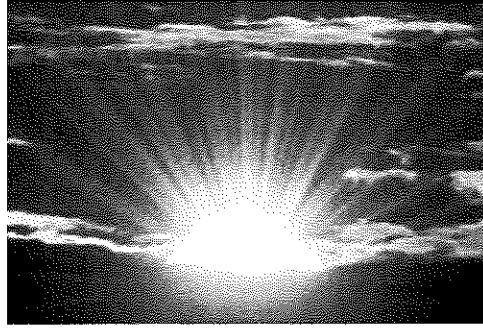


iStock

All Around Us

Radioactive materials give off invisible atomic particles or energy called nuclear radiation. "Radiation is always around us," notes Dr. Ritsuko Komaki, a professor of radiation oncology at the MD Anderson Cancer Center in Houston.

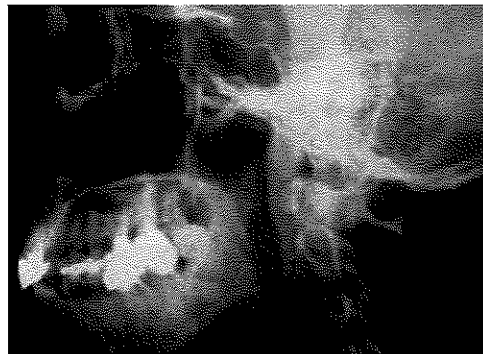
Very high exposures to nuclear radiation can cause sickness and, in the worst cases, death. But most radiation around us isn't something to worry about. Some normal amounts of nuclear radiation come from the sun, along with the sun's heat, visible light, ultraviolet rays, and more. Tiny bits of nuclear radiation are in soil too. "Usually it's a very low dose, and it's not harmful," says Komaki.



Harald Sund/Getty Images

Activities such as mountain climbing or taking a long airplane ride expose you to slightly more radiation—because you’re closer to the sun. Experts generally don’t worry about those exposures either.

Nuclear reactors, such as those at the Fukushima Daiichi plant in Japan that was damaged by the 2011 earthquake and tsunami, split uranium atoms. That action releases energy. The energy is used to boil water, which in turn creates steam that moves turbines that make electricity. When everything works, the process doesn’t pollute the air or water. Nuclear plants’ fuel and certain wastes, however, are radioactive.



iStock

When emergency measures failed at Fukushima, explosions and fires released radioactivity into the environment. Cleanup will take years. Meanwhile, the accident has heightened fears about radiation.

Radiation’s Risks

After a nuclear accident, radiation levels in the area of the nuclear plant can be thousands of times higher than they were before. Very high exposures cause acute radiation syndrome. Symptoms can range “from not feeling right to seizures and even loss of consciousness and death,” says Dr. David Weinstock at Boston’s Dana-Farber Cancer Institute.

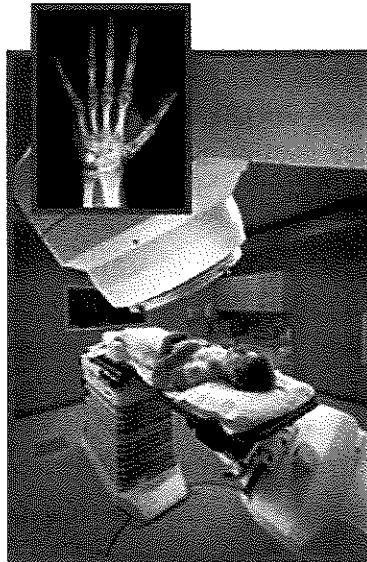
In addition to making people sick right away, too much radiation can damage cells and raise a person's risk of developing cancer later in life. In 1986, a nuclear power plant exploded in Chernobyl, Ukraine. Years later, thyroid cancer rates rose among young adults nearby. (The thyroid gland helps control the body's energy levels and other functions.) The young people had grown up drinking milk from cows that ate contaminated grass.

Authorities are checking radiation levels in various foods and water to prevent similar problems in Japan. The U.S. Food and Drug Administration (FDA) is also monitoring foods coming from Japan to the United States. While scientists found slightly higher radiation on the West Coast after the Fukushima accident, amounts were way below dangerous levels. "The Fukushima event really poses no risk to people in the United States," says Weinstock.

On the Plus Side

Nuclear radiation can help us get—and stay—healthy too. A special type of radiation is used to treat some meats, fruits, and vegetables to kill bacteria that can make people sick, for instance.

In the same way that nuclear radiation's energy can kill some of the body's cells, it can also be used to kill cancerous tumors. "We are just targeting the cancer cells and protecting normal tissue surrounding the cancer," explains Komaki, who primarily researches lung cancer. According to the National Cancer Institute, approximately half of all cancer patients receive some form of radiation therapy as part of their treatment.



Kyodo/Newscom; Ap
Photo/Air Photo Service

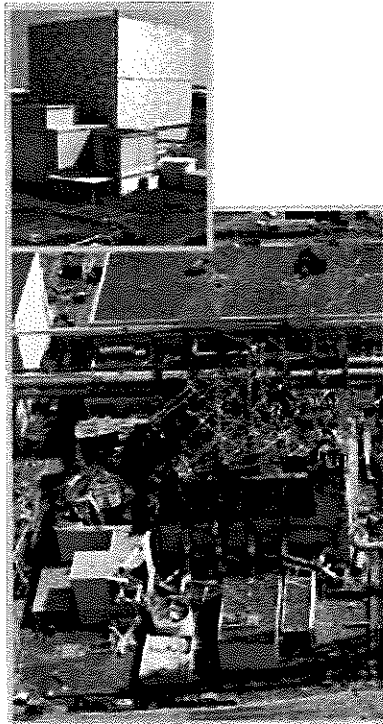
Some forms of nuclear radiation can help doctors track down health problems in the first place. Torso X-rays and computed tomography (CT) scans use nuclear radiation to see inside the body. The benefits from being able to find health problems generally outweigh any tiny risks from exposure to radiation, but some accidents have happened. As a result, the FDA wants medical scanning equipment to have even more safeguards than it does now. Either way, experts say it's a good idea to limit your exposure to nuclear radiation even when it's part of a medical test. Always ask why any scan is necessary, especially if you think you have had that same test recently. "If there's no justifiable reason for the extra radiation exposure, then don't let yourself be exposed" if you can help it, says Kelly Classic, a health physicist at Minnesota's Mayo Clinic and spokesperson for the Health Physics Society.

Scientists and health experts around the globe continue to study nuclear radiation. They hope to harness its powerful benefits to continue to help people. When it's used intentionally, radiation can be a boon to human health. "There are hundreds of thousands to millions of people who are alive today because we've harnessed the power of radiation," says Weinstock.

Could It Happen Here?

The United States hasn't had a major nuclear emergency since an accident closed Pennsylvania's Three Mile Island power plant in 1979. Will an accident happen here again? "Nobody can answer that question," says physicist Kelly

Classic, a spokesperson for the Health Physics Society. But, she says, companies and communities are prepared. Power companies have regular safety drills for plants and nearby communities. People living nearby have access to emergency medicines such as potassium iodide in case of an accident. (That medicine temporarily blocks radioactive iodine from entering, and possibly harming, the thyroid gland.) Hospitals and emergency responders conduct regular drills on handling emergencies too.



Shutterstock; Lester
Lefkowitz/Getty Images

Radon and Indoor Air

A radioactive gas called radon exists in soil all over Earth. It forms when naturally occurring radioactive materials such as uranium break down. Radon can seep into basements and floors, and buildup of the gas inside a home can make people sick. See whether the Environmental Protection Agency recommends testing for homes in your area. Visit www.epa.gov/radon/index.html.

No, Your Food Won't Glow

Treating some types of meat and produce with one type of nuclear radiation can prevent disease. The process, called food irradiation, uses "enough to destroy the bacteria, but not enough to destroy the quality or the nutritional

content of the food,” explains food scientist Christine Bruhn at the University of California, Davis. It doesn’t make food radioactive—just as an X-ray won’t make you radioactive.

Nonetheless, critics worry about possible accidents at processing plants. Detractors also say irradiation benefits farmers more than consumers. In their view, farms should avoid overcrowding in the first place—cramped conditions on factory farms, they assert, stress animals and promote the types of disease that irradiation is then used to destroy.

In any case, bacteria can still contaminate food after irradiation. The best way to prevent foodborne illness, whether the food has been treated with irradiation or not? Practice safe food handling at home.

Name: _____ Date: _____

1. What is one way radiation is used that is beneficial for our health?

- A to kill bacteria in foods that could make us sick
- B to disinfect surfaces like tables and door handles where bacteria often live
- C to zap our bodies with extra energy for sports and activities
- D to damage cells and eventually cause things like thyroid cancer

2. In the article, how does the author describe radiation?

- A as something to avoid at all costs
- B as something that's less harmful than its reputation suggests
- C as something that can be both good and bad
- D as something that is helpful for human health and food safety

3. Which of the following conclusions about radiation is supported by the passage?

- A Radiation is more harmful than helpful.
- B Radiation is neither harmful nor helpful.
- C Radiation is more helpful than harmful.
- D Radiation is both helpful and harmful.

4. Read the following sentence: "You might not know exactly how to describe it, but chances are good that you know the word radiation can have two very different connotations."

In this sentence the word **connotations** means

- A denotations
- B meanings
- C connections
- D implications

5. This passage deals primarily with

- A the ways that radiation can kill bacteria that may be present in foods
- B the effects, both positive and negative, that radiation can have
- C the fact that too much radiation can be harmful for our health, even causing cancer or death
- D why we should be careful about and try to minimize our exposure to radiation

6. How does radiation help doctors identify health problems in patients?

7. Why do you think the accident at Fukushima has "heightened fears about radiation"?

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

The author describes both the negative and positive sides of radiation _____ people understand all sides of the issue.

- A so
- B because
- C but
- D before

9. Answer the following questions based on the sentence below.

Radiation can increase the risk factor of cancer by damaging cells.

What? radiation

(does) What? _____

How? _____

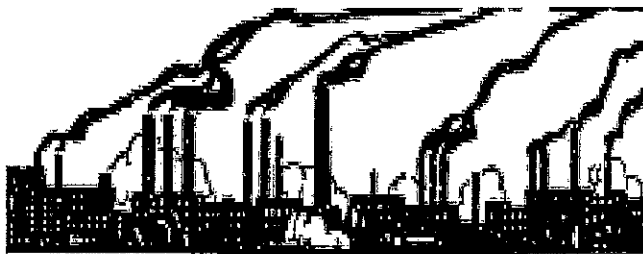
10. Read the vocabulary word and definition below and complete questions 10a, 10b, and 11.

Vocabulary Word: contaminated (con · tam · i · nat · ed): impure or unusable.

10a. Read the sentences below and underline the word **contaminated**.

1. After the oil spilled into the river, the water was contaminated.
2. By touching the evidence with bare hands instead of using gloves, the investigator contaminated the evidence.
3. The waste products from the large factory contaminated the water source nearby.
4. If you don't wash your hands before touching food, the bacteria on your hands could cause the food to become contaminated.
5. Radiation from a nuclear power plant explosion caused the grass around the area to become contaminated.

10b. Which picture most likely represents contaminated air?

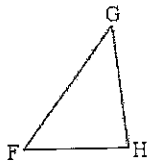


11. Would you drink a liquid if someone told you it had been contaminated?

Name: _____ Date: _____

NTI 7th math - Day #9

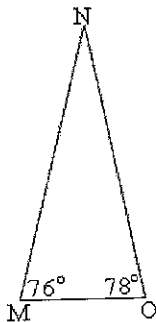
Question 1 of 10



Triangle FGH has one angle that measures 83° on the inside, and another angle that measures 54° on the inside. How many degrees does the third angle measure on the inside?

- A. 34°
- B. 43°
- C. 137°
- D. 223°

Question 2 of 10



Look at triangle MNO.

If $\angle NMO$ is 76° and $\angle MON$ is 78° , what must be the measure of $\angle MNO$?

- A. 16°
- B. 24°
- C. 26°
- D. 36°

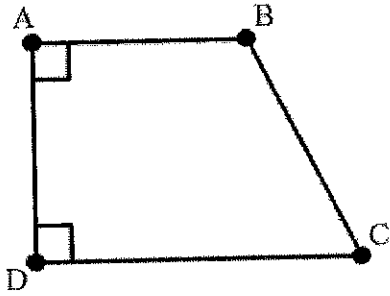
Question 3 of 10

Bill is given an assignment in math class to draw different angles. Which of the following terms is an angle whose measure is greater than 90 degrees and less than 180 degrees?

- A. collinear
- B. acute
- C. straight
- D. obtuse

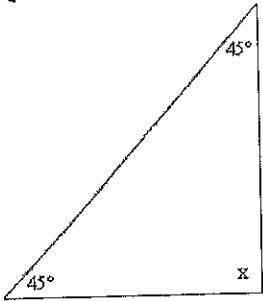
Question 4 of 10

Given that $\overline{AB} \parallel \overline{CD}$, what shape is shown below?



- A. trapezoid
- B. square
- C. parallelogram
- D. rhombus

Question 5 of 10



Find the measure of $\angle x$.

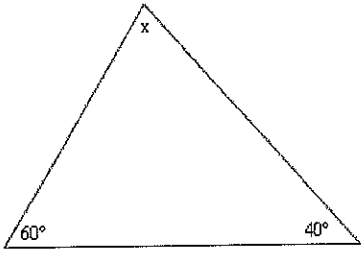
- A. 45°
- B. 60°
- C. 90°
- D. 120°

Question 6 of 10

Ashley is on the ground looking through her telescope. She is measuring the angles formed between her telescope, the North Star, and the Moon. She is going to draw the triangle. She notes that two of the angles measure 80° and 60° . What is the measure of the third angle she will draw?

- A. 40°
- B. 60°
- C. 80°
- D. 100°

Question 7 of 10



What is the measurement of the missing angle?

- A. 90°
- B. 80°
- C. 70°
- D. 60°

Question 8 of 10

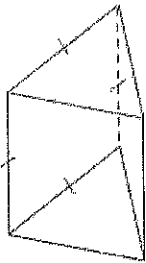
Three segments are 15 inches, 21 inches, and 36 inches in length. Determine and explain if the three segments form a triangle.

- A. yes; $15 + 21 = 36$
- B. yes; $15 + 21 < 180$
- C. no; $15 + 21 + 36 \neq 180$
- D. no; $15 + 21 = 36$

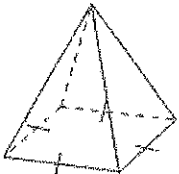
Question 9 of 10

Ryan was asked to draw a square prism (cube). Which one did he draw?

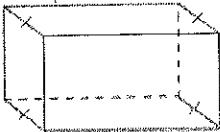
A.



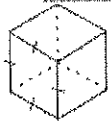
B.



C.


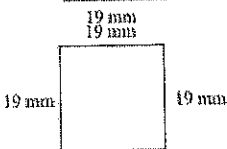
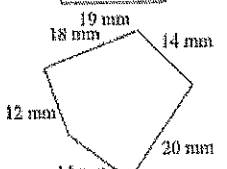
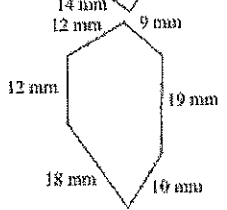


D.



Question 10 of 10

Use a straightedge to construct a polygon with a perimeter of 78 mm.

- A. 
- B. 
- C. 
- D. 

Copyright © Discovery Education Assessment 2016. Proprietary Information. All rights reserved.