

# Sanborn Regional Middle School



NECAP Review Booklet

2009 -2010

Grade Eight

Dear Parent/Guardian,

In an effort to better prepare your child for the NECAP ( New England Common Assessment Program), we have put together several released questions from last year's test. You will find math and reading questions that your child should be familiar with. We ask that you and your child thoughtfully review and answer all the questions within the review booklet. Examples are provided in this booklet of various degrees of competency. Please return the booklet to your homeroom teacher signed by both you and your child no later than October 8<sup>th</sup>. The NECAP will be administered at Sanborn Regional on October 6, 7, and 8<sup>th</sup>. For more information regarding NECAP, please feel free to contact the school or the New Hampshire Department of education at, <http://www.ed.state.nh.us>

Thank you,  
Sanborn Regional Middle School Staff

*Thank you for participating in this very important review. By completing this review, your child will be eligible for a one dollar discount at a school sponsored dance.*

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Parent/ Guardian Name Printed

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Parent/Guardian Name Signed

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Student Name Printed

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Student Name Signed

What Impact did the camera obscura have on photography?

Explain the image that was made by the camera obscura.

Below is a sample math problem that has been completed by a student and scored from 1 -4(4 being the highest). When answering the questions, refer to this sample for how they compare in details and correctness.

### Sample Math Question

Cal said, "All squares are similar to each other."

a. Explain how you know whether Cal is or is not correct.

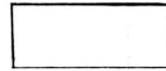
Stu said, "All rectangles are similar to each other."

b. Draw two rectangles that prove that Stu's statement is **false**. Explain your answer.

### SCORE POINT 4

a. Cal is correct because all squares have to have 4 equal length sides and all four corners must be  $90^\circ$  angles.

b.

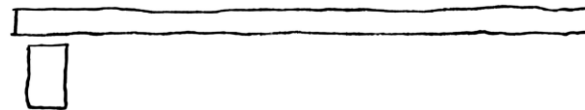


Some rectangles ratios length and width are very different.

### SCORE POINT 3

a. she is correct because they all have 4 sides the same length and 4 right angles

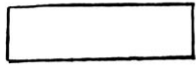
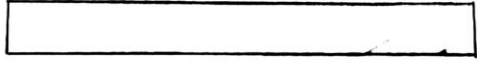
b.



## SCORE POINT 2

a) Squares are similar to each other because all squares have equal sides.

b)

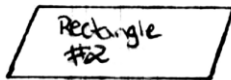


False

## SCORE POINT 1

A: Cal is correct because all squares have to have 4 sides and all the sides have to be the same size and they have to be parallel.

B:



Unfortunately, the image quickly faded, but the first official photograph or “light drawing” was taken.

## IMPACT

By the late 1820s, Niepce and his heliographs were making quite a stir around France. At that same time, Louis Daguerre, a French painter who had also been working with “fixing light,” learned about his work. He convinced the financially strapped Niepce to go into partnership in 1829. Building on the work done by Joseph Niepce, Louis Daguerre greatly improved the process of photography. He introduced the daguerreotype camera in Paris in 1839. It was the standard for almost 30 years. Niepce died suddenly in 1833, and Daguerre took over the business and is usually credited as the inventor of photography. With a photograph, people could finally record an exact duplicate of what the eye saw. No longer did the world have to depend on the artist’s eye to capture an event or image.

This question refers to the passage titled “Photography” by Stephen M. Tomecek.

Explain how the text features (for example, illustrations, headings, and words in italics/bold/quotation marks) are helpful in understanding the information in the passage. Use details from the passage to support your answer.

## Photography

Stephen M. Tomecek

Today, photography is a breeze. Just point the camera, press the button, and almost instantly, you have a perfect copy of the scene that you're looking at. Before the invention of the camera, artists had to work for hours to try to capture an image. No matter how objective they tried to be, their drawings could never be perfect copies. Photography was made possible because of all the experimenting people were doing with chemicals in the late 1700s. One critical discovery was made by J. H. Schulze. Schulze noticed that certain compounds containing silver salts would get darker after they had been left out in a bright light. This seemingly minor reaction would ultimately be the key to modern photography.

### HOW IT WORKS

The first step in taking a photograph is gathering the light from the scene to be captured. As early as 1600, people had discovered how lenses could be used to direct and focus light, and a device called the *camera obscura*, which is Latin for "chamber of dark," had been invented. By 1816, all the elements were in place for a true "photographic" camera to be developed, and a French inventor named Joseph Nicéphore Niepce put the pieces together. The first camera obscuras were simply dark rooms with a small hole in one wall. As light entered the hole, it refracted, or bent a little, and cast a perfect upside-down image of what was outside on the wall opposite the hole. Artists found them helpful for tracing scenes and portraits of people. Substituting a sheet of paper for the screen, they could copy an image directly from the light. Learning of Schulze's discovery, Niepce took a metal plate made of pewter and coated it with different silver compounds. After many hours in the sun, a *heliograph*, or "sun drawing," appeared. Convinced that he was on the right track, he substituted paper covered with silver chloride for the pewter and loaded the paper in the back of a portable *camera obscura*. Using this method, he was able to get a crude image of a scene from outside his workroom on the paper.

The lengths of two sides of a triangle are 20 cm and 32 cm.

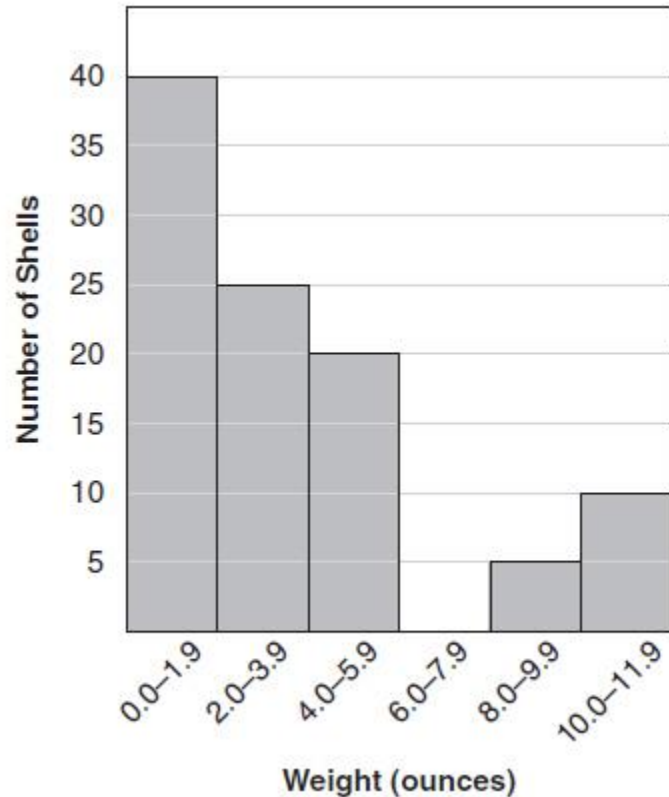
- Explain why the third side of the triangle can or cannot have a length of 10 cm.
- Explain why the third side of the triangle can or cannot have a length of 48 cm.

Ken wants to earn \$37.50 to buy a computer game. He uses the equation below to calculate the number of hours,  $h$ , he needs to babysit to earn the \$37.50.

$$5h + 10 = 37.50$$

How many hours does Ken need to babysit to earn enough money to buy the computer game?

Terry weighed each of the seashells in his collection to the nearest tenth of an ounce. This histogram displays his results.



- How many seashells are in Terry's collection altogether?
- Explain whether or not the median weight of Terry's seashells is between 4.0 and 5.9 ounces.

Terry adds another seashell to his collection. The new seashell weighs 27.8 ounces.

- Explain whether or not the **mode** of the weights will change when Terry includes 27.8 ounces.
- Explain whether or not the **mean** of the weights will change when Terry includes 27.8 ounces.

### SCORE POINT 3

At the beginning of the passage, the stallion and the boy don't get along. The stallion charged and run down Running Crane. The horse could've killed him! This happened many times until finally Running Crane remembers that the stallion is afraid of the rope. When he makes a barricade with the rope, at first the horse won't go near it. Slowly the horse begins to get more comfortable with it. At the end of this passage, the stallion drinks from Running Crane's shirt (he made a bucket out of it).

### SCORE POINT 2

I believe that in a way the stallion's become more trusting. At first he tried to kill the Running Crane, and in the end he actually walked up to the Running Crane and drank his water

### SCORE POINT 1

The stallion becomes more comfortable with running crane than in the beginning when he was shy and territorial.

opening. After a while, Running Crane thought of his shirt. He took his awl and sinew and patched the cuts that the spirit bull's hooves had made. Then he sewed up the armholes and the neck. He stretched the shirt over a forked branch and dipped it into the spring. The shirt dripped, but it would hold water long enough for the stallion to drink. Thirsty, the stallion approached several times, but when Running Crane scooped up water, the horse snorted and fled. Remembering what Beaver-Slaps-Tail-Twice had told him, Running Crane peeled the bark off a young cottonwood and rubbed the sap over his hands and body. He daubed his shirt with cottonwood sap, too. The smell helped calm the stallion. When the big horse approached again, still snorting distrustfully, he extended his muzzle and drank a few mouthfuls before shying away.

**Sample Question:** How does the stallion's behavior change from the beginning of the passage to the end? *Use details from the passage to support your answer.*

**Sample Scored Responses:**

**SCORE POINT 4**

From the beginning to the end the stallions behavior changed quite alot. In the beginning "the stallion shrilled and charged, ears laid back, teeth bared, hooves flashing, filling the ravine with his screams." Obviously, the stallion was not happy with Running Crane. In the middle "Running Crane waved the ropes. The horse spun away and raced around the bend." This shows that the stallion was frightened by the ropes. Running Crane could now get a drink from the spring. In the end "he extended his muzzle and drank a few mouthfuls before shying away." This shows that the stallion has calmed down and befriended Running Crane. So, as you can see the stallion changed alot from the beginning, when he was wild, to the end, when he was much calmer.

Below is a story with a response that has been completed by a student and scored from 1 -4(4 being the highest). When answering the questions, refer to this sample for how they compare in details and correctness.

**Standoff** by *Ned Ackerman*

Running Crane followed the ravine into the hills looking for water. Here and there, a cottonwood had taken root, but the hills did not connect to the mountains. Melt from the high snowfields that fed the prairie rivers during the summer did not reach here. Water ran on the surface only during rainy periods or in early spring when the snows first melted in the low country. Half a day's walk to the north, a line of dark green marked where a small river snaked across the prairie—too far away to go for a drink. When he returned to the ravine, he found the stallion cropping scattered clumps of grass. He had already devoured most of them. "We make a fine pair, horse," said Running Crane. He looked thirstily toward the spring. Then he looked at the prairie. "You have all the water you can drink, but little grass to eat. I have all I can eat, but little water to drink. If you could talk, we could make a trade, I and you." The idea of a trade grew stronger, and Running Crane gathered an armload of grass. He crawled under the trunk of the cottonwood, and peeked around the bend. The stallion stood at the far end of the ravine. Running Crane walked forward twenty paces, dropped the grass he had gathered, then retreated to the spring. He thought perhaps the stallion would eat long enough to allow him to drink. The stallion shrilled and charged, ears laid back, teeth bared, hooves flashing, filling the ravine with his screams. Running Crane sprinted for the barrier. Sand sucked at his feet, and the dead cottonweed seemed to slide away from him. His breath came in ragged gasps. His thighs burned. Hoofbeats closed rapidly. He dove for the log and rolled under before the stallion could trample him. The stallion shrilled in defiance and trotted off, satisfied with having driven the human away. When he reached the pile of grass, he stopped to eat. Running Crane tried again to trade his way to the spring with armloads of grass, with the same result. The stallion charged, intent on killing him. Running Crane doubted the stallion understood the connection between the human he had chased and the grass. This spirit being was, after all, a horse. He gave up and returned to lie beside his seep. When

the depression filled, he drank, but satisfying his thirst took a long time. In the morning, he hunted and ate, then returned to gaze at the stallion. The stallion glared back. When Running Crane finally noticed Wolf Eagle's ropes under the brush he had piled over the game trail, he felt foolish for not remembering them sooner. He pulled one free and began to coil it. Seeing the rope, the stallion tossed its head and raced back to the spring, snorting. Running Crane pondered the stallion's reaction. And he remembered how the big horse stopped when he first blocked the trail. The stallion could have run him down easily. Then Running Crane realized the stallion did not fear him. The creature feared the ropes. But how much? Running Crane crawled beneath the cottonwood and edged forward, ready to dive for cover. The stallion shrilled and charged. Running Crane waved the ropes over his head, and the stallion skidded to a halt, throwing up a shower of sand. Running Crane took another step, waving the ropes. The horse spun away and raced around the bend. His heart soaring in triumph, Running Crane hurried to the spring and drank his fill.

Now the youth knew he could drink and eat, but what about feeding the stallion? Leaving piles of grass would not tame a horse. He rubbed his lean belly thoughtfully. Food means much, he told himself, but water means more. He could stand by the spring and keep the stallion away, but he would need to sleep. Then he had an idea. First, he gathered all of the brush, saplings, and dead branches he could find and threw them into the ravine. These he dragged to the narrow bend. The stallion charged again and again, but Running Crane waved the ropes to drive him back until he could build another barricade, this one between the stallion and the spring. Now if the stallion wanted to drink, he would have to drink from Running Crane's hand. If the stallion wanted to eat, Running Crane would have to feed him. At first, the stallion refused to come near the barricade and stood at the far end of the ravine. Late in the afternoon, thirst drove the stallion to approach the barrier. Only then did Running Crane realize he had no way to give the horse water. Feeling foolish, he dumped the contents of his quiver on the ground and dipped it into the spring. Streams of water sprang through the stitching. The stallion sniffed suspiciously. He could smell the water and see it and hear it, but he snorted and galloped away. Running Crane examined his leaking quiver. Even if the stallion had tried to drink, his muzzle would not fit within the