

ISTEP+ Spring 2013

Indiana Statewide Testing for Educational Progress Plus

Mathematics • English/Language Arts
Grade 8

Web Version



Use only a Number 2 pencil to respond to the questions in this book. Responses written in pen CANNOT be scored.

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1 2 3 4 5 ROV 15 14 13

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If you see this symbol, you may use your reference sheet to help solve the problem.



If you see this symbol, you may use a calculator to solve problems in the test.

NOTE: A correct answer **CANNOT** receive full credit if no work is shown.

Since you may receive partial credit for all problems in this test, it is important to show ALL work in the spaces provided in this book. When you see the words **Show All Work**, be sure to

- **show all the steps needed to solve the problem**
- **make your handwriting clear and easy to read**
- **write the answer on the answer line**

As you complete each problem, remember to

- READ** the problem carefully
- PLAN** how to solve the problem
- SOLVE** the problem showing all steps
- CHECK** your work

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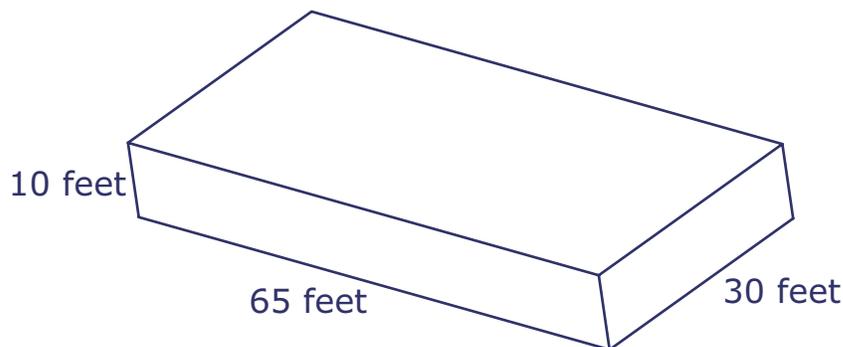


Session 1: Mathematics

1



The Tayar family is having a swimming pool installed. A diagram of the hole, shaped like a rectangular prism, from which the dirt will be removed to install the swimming pool is shown below.



What is the volume of dirt, in cubic feet, that will be removed?

Show All Work

Answer _____ cubic feet

A truck will be used to haul away all the dirt. The truck can haul 500 cubic feet of dirt each trip. The cost for 1 trip is \$35.

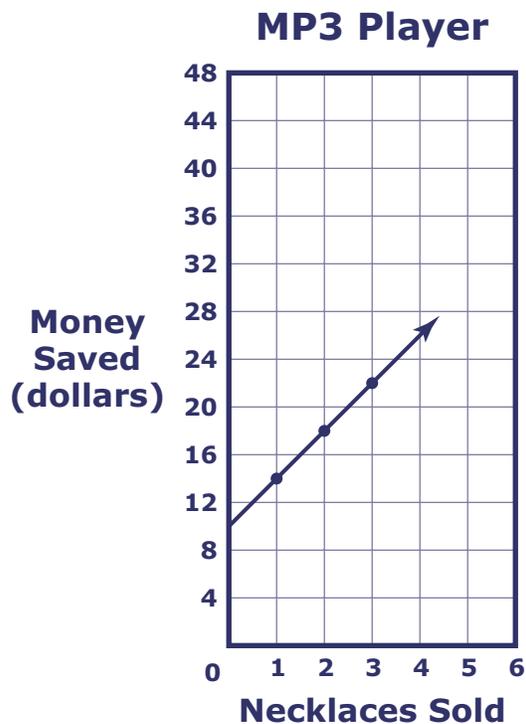
What is the cost to haul away all the dirt? Do NOT include tax.

Show All Work

Answer \$ _____

Go On

2 Rebecca wants to buy a new MP3 player. She has already saved some money and will earn the rest by selling necklaces. Each necklace will be sold for the same amount of money. The graph below shows her progress.



Rebecca uses the equation $y = 4x + 10$ to calculate the amount of money (y) she will have after selling x necklaces.

Explain what the y -intercept of \$10 and the slope of \$4 represent in terms of the amount of money Rebecca has saved and the amount she has earned selling necklaces.

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Session 1

How many necklaces will Rebecca have to sell before she is able to purchase an MP3 player that costs \$167, after tax?

Show All Work

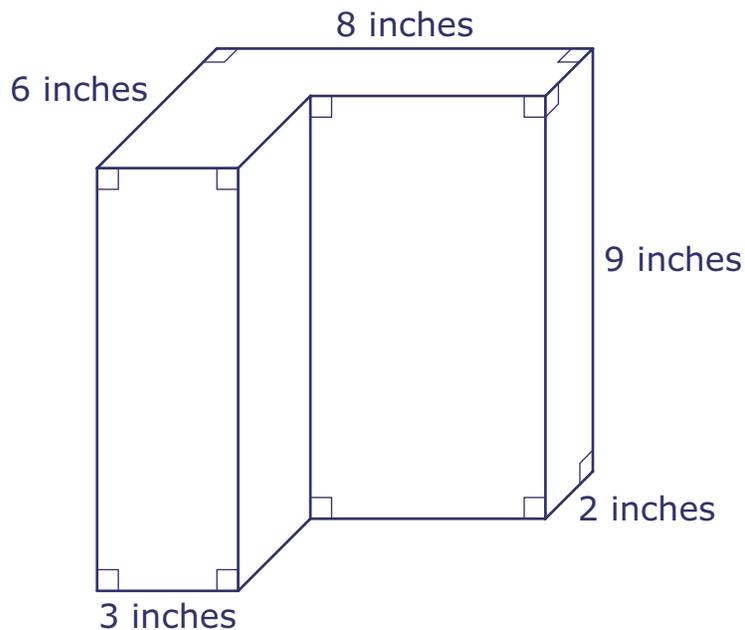
Answer _____ necklaces



Session 1

3

A company packages one of its products in a box shaped like the figure shown below.



What is the volume, in cubic inches, of the box?

Show All Work

Answer _____ cubic inches

Go On



Session 1

The company fills 75% of the box with packing material to protect the product from breaking. The company pays \$0.02 per cubic inch for the packing material.

What is the cost, in dollars, to fill 75% of 1 box with packing material? Do NOT include tax.

Show All Work

Answer \$ _____

- 4** Erin works as a computer support person after school. She earns \$15 per day plus \$0.50 for each computer problem she fixes. Yesterday, Erin earned \$16.50.

Write an equation that can be used to determine the number of computer problems, p , Erin fixed yesterday.

Equation _____

How many computer problems did Erin fix yesterday?

Show All Work

Answer _____ computer problems

Erin is saving the money she earns to buy a game system for \$200. Erin has only saved her earnings from yesterday. She is going to work 10 more days to save for the game system.

How many problems will Erin need to fix per day to be able to buy the game system if she fixes the same number of computer problems each day?

Show All Work

Answer _____ problems per day



ATTENTION! Please do not leave your punchouts or reference sheet in this book.



STOP! _____ **STOP!** _____ **STOP!** _____ **STOP!** _____ **STOP!** _____

ATTENTION!

**Do NOT go on
until you are
told to do so.**





Whenever you see this icon, you will be doing a writing activity. Your writing will not be scored on your personal opinions or choices, but will be scored objectively on

- how clearly you address the prompt
- how well you organize your ideas
- how effectively you express yourself
- how consistently you use correct paragraphing, grammar, spelling, and punctuation

Be sure to use the rules of Standard English. Standard English is the English commonly used in formal writing. It does not include slang or jargon.

Session 2: English/Language Arts

1

A Big Task

Read the writing prompt below and complete the writing activity.

Think of a time when you completed a large project. What was the project? Was it a lot of hard work? How did you prepare for the project, and what materials or supplies did you need to complete it? How did you feel when it was finished?

Write an essay in which you describe what you did and how it felt to complete the task.

Be sure to include

- a detailed description of the project
- specific feelings you had during the project
- details on how you felt when it was done
- an introduction, a body, and a conclusion to your essay

Session 2

Use the blank Prewriting/Planning space below for notes, lists, webs, outlines, or anything else that might help you plan your writing. If you need additional paper for planning, raise your hand and your teacher will give you more paper. **You must write your final draft on the lines beginning at the top of the next page.**

Prewriting/Planning

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Go On



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Lined writing area with 15 horizontal lines.

Now check your writing using this Editing Checklist.

Editing Checklist

- 1 Check your capitalization and punctuation.
- 2 Spell all words correctly.
- 3 Check for sentence fragments or run-on sentences.
- 4 Keep verb tense consistent.
- 5 Make sure subject and verb agree.
- 6 Use words according to the rules of Standard English.
- 7 Remember to paragraph correctly.



STOP! STOP! STOP! STOP! STOP!

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until you are
told to do so.**



Session 3: English/Language Arts



Whenever you see this icon, you will be doing a writing activity. Your writing will not be scored on your personal opinions or choices, but will be scored objectively on

- how clearly you address the prompt
- how well you organize your ideas
- how effectively you express yourself
- how consistently you use correct paragraphing, grammar, spelling, and punctuation

Be sure to use the rules of Standard English. Standard English is the English commonly used in formal writing. It does not include slang or jargon.

Directions

For Session 3, you will read an article called “Home Sweet Bridge” and complete Numbers 1 through 3. You may look back at the article as often as you like. Then you will complete a writing activity.

Go On



Home Sweet Bridge

by Glenn Alexander Hoye
with Margaret Hoye

Early in May 1996, I was informed that a colony of bats roosting within an old wooden bridge in eastern New South Wales was about to lose its home. Demolition was due to commence within days to make room for a new concrete structure. Guessing that these particular bats were large-footed bats (*Myotis adversus*), a threatened species, I quickly alerted environmental staff at the local city council in Lake Macquarie.

Sure enough, an initial inspection revealed that this represented the first known roost¹ of large-footed bats in the Lake Macquarie area. From my point of view, the discovery was very exciting, but for the city council and their bridge construction company, it presented unforeseen obstacles. I developed a plan allowing the bridge to be replaced with minimal disturbance to the bat colony, and it was approved by both the city council and the National Parks and Wildlife Service. My subsequent² role was to ensure the bats were safely excluded from the bridge and to attempt to re-establish their roosts within the new structure.

As demolition began, we progressively excluded the entire colony of bats from the cracks in the timbers where they roosted. Plastic flaps were placed over roost entrances so that the bats exiting at dusk were unable to re-enter after feeding. Using scaffolding³ beneath the bridge, I crawled around on the narrow

¹**roost:** a place where birds and other flying creatures sleep

²**subsequent:** later

³**scaffolding:** a temporary framework of poles and planks

Go On 

timber planks, precariously⁴ suspended over a murky creek, placing traps at the roost entrances. The bats I caught were banded,⁵ and some individuals were fitted with radio transmitters. By tracking the transmitter signals, we discovered an alternative roosting site among the concrete beams of a canal supplying water to a power station about 2 1/2 miles (4 km) away.

When the new bridge was partially completed, the construction crew moved roost timbers from the old wooden bridge into equivalent positions in the new concrete one. This method of incorporating pieces of the original roost into a new structure may actually be the first of its kind attempted.

We had determined that, prior to the bridge replacement, a population of at least 170 large-footed bats had roosted there. Also, the presence of many juveniles and the discovery that females outnumbered males approximately four to one suggested the bridge had been a maternity roost. Following completion of the new bridge, the Lake Macquarie City Council funded a monitoring program, and we have verified that large-footed bats have re-established roosts within the old timbers and are breeding successfully. Apparently the bats recognized their home!

⁴**precariously:** unsafely

⁵**banded:** a strip or circle of material attached to the legs of creatures being studied

Go On



1

Why is it important to move the large-footed bats? What is unique about this particular colony that makes it even more important than the narrator first thought? Support your answer with details from the article.

Handwriting lines for question 1

2

Explain what details from the article show that the local city council in Lake Macquarie was concerned about the environment. Support your answer with details from the article.

Handwriting lines for question 2

3 What details from the article show that the narrator knows a lot about large-footed bat behavior? Support your answer with details from the article.

DO NOT WRITE HERE

4 Read this beginning of a story. Then complete the writing activity that follows.

When Mom woke me up that morning she was smiling from ear to ear.

"I don't know why you are so excited," I complained. "It's just a museum. Why do you think I'm going to enjoy visiting it today?"

"You will see," she responded mysteriously.

Mom had told me the week before that there was a traveling exhibit at the museum. She had said that I would be thrilled to find out what it was, but she kept the topic a secret. As I got ready that morning, I tried to imagine what the exhibit might be about. I tried to get hints from Mom over breakfast but she wouldn't say a word. As we took the bus to the museum I continued to ask questions, but Mom kept changing the subject.

The moment I entered the museum, I knew Mom was right: I absolutely was delighted to spend the day there. I was amazed to find out that the entire exhibit was dedicated to my favorite thing in the world!

Imagine that you are the narrator and you went to the museum. What did you see? What did you do? Finish the story by describing your visit to the museum. You do not need to rewrite the beginning of the story.

Use the blank Prewriting/Planning space below for notes, lists, webs, outlines, or anything else that might help you plan your writing. If you need additional paper for planning, raise your hand and your teacher will give you more paper. **You must write your final draft on the lines beginning at the top of the next page.**

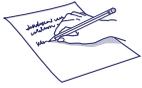
Prewriting/Planning

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Go On





Use the Editing Checklist on page 30. Check your story for correct grammar, spelling, punctuation, and capitalization. **Remember, your story should be well organized.**

Lined writing area with horizontal lines for text entry.

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Now check your writing using this Editing Checklist.

Editing Checklist

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Applied Skills Assessment
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