

2013
Measures of Student Learning:
NC Final Exams
Sample Items



Public Schools of North Carolina
State Board of Education
Department of Public Instruction
Raleigh, North Carolina 27699-6314



Diary

"Dear Diary," she wrote, her pen poised
pointed and sharp,
thoughts twirling swirling cavorting in the air
risking life and limb and maybe some blood.

- 5** The ink sat waiting, impatient, annoyed,
for the clarity to settle in, for the words to coalesce
into some form of sanity.
But somewhere in the woven threads of thought
when the next swipe of the pen touched
- 10** the puritanical canvas that threatened her equilibrium,
there came not a letter formed, not a word whispered,
but another kind of line—
the dancing marks finding their own path, their own mind.
Words protested, "No! It is our turn!" but were ignored
- 15** in favor of the image spilling forth from within—
a wounded dragon, reared back in a rage,
hissing and spitting flames of pain and fury,
pierced through the heart by a spear of loneliness and neglect.
The pen flew, spatters of ink transforming into blood and tears.
- 20** Words retreated, knowing they'd lost the battle,
soundly defeated by a power they could not match,
even a thousand strong.
At last, she lay, silent, sated, staring at the open page,
wondering when the next attack would come.



Sample Question

In the poem, how are the girl and the dragon related?

- A The girl wants to write a story about a dragon.
- B The dragon represents the girl and her situation.
- C The girl wishes she could turn herself into a dragon.
- D The dragon represents the power the girl wants to have.



Behind a Wall

by Amy Lowell

- I own a solace shut within my heart,
A garden full of many a quaint delight
And warm with drowsy, popped sunshine; bright,
Flaming with lilies out of whose cups dart
5 Shining things
 With powdered wings.
- Here terrace sinks to terrace, arbors close
The ends of dreaming paths; a wanton wind
Jostles the half-ripe pears, and then, unkind,
10 Tumbles a-slumber in a pillar rose,
 With content
 Grown indolent.
- By night my garden is o'erhung with gems
Fixed in an onyx setting. Fireflies
15 Flicker their lanterns in my dazzled eyes.
In serried rows I guess the straight, stiff stems
 Of hollyhocks
 Against the rocks.
- So far and still it is that, listening,
20 I hear the flowers talking in the dawn;
 And where a sunken basin cuts the lawn,
Cinctured with iris, pale and glistening,
 The sudden swish
 Of a waking fish.



Sample Question

In line 8, how could the use of the word *wanton* affect the reader's understanding of the wind?

- A It creates a sense of movement, emphasizing the wind's quick departure.
- B It reinforces the mercurial nature of the wind as both gentle and rough.
- C It introduces an air of uneasiness, as the wind decides where it wants to go.
- D It suspends reality, characterizing the wind as a spiritual guide.



Snow Storm

by John Clare

- What a night! The wind howls, hisses, and but stops
To howl more loud, while the snow volley keeps
Incessant batter at the window pane,
Making our comfort feel as sweet again;
- 5** And in the morning, when the tempest drops,
At every cottage door mountainous heaps
Of snow lie drifted, that all entrance stops
Until the besom and the shovel gain
The path, and leave a wall on either side.
- 10** The shepherd rambling valleys white and wide
With new sensations his old memory fills,
When hedges left at night, no more descried,
Are turned to one white sweep of curving hills,
And trees turned bushes half their bodies hide.
- 15** The boy that goes to fodder with surprise
Walks o'er the gate he opened yesternight.
The hedges all have vanished from his eyes;
Een some tree tops the sheep could reach to bite.
The novel scene emboldens new delight,
- 20** And, though with cautious steps his sports begin,
He bolder shuffles the huge hills of snow,
Till down he drops and plunges to the chin,
And struggles much and oft escape to win—
Then turns and laughs but dare not further go;
- 25** For deep the grass and bushes lie below,
Where little birds that soon at eve went in
With heads tucked in their wings now pine for day
And little feel boys o'er their heads can stray.



Sample Question

How does the division of the stanzas support the poet's varying portrayal of the storm?

- A It accompanies a shift in emotion from deep fear for the storm's wrath to wonder at the depth of the snow.
- B It shifts the atmosphere from one of anticipation and joy before snowfall to one of annoyance and disgust after.
- C It shifts between portrayals of the storm as a potential bounty of nature's colors and a dearth of anything but white.
- D It marks a shift in expectations of the storm's duration from extensively long to a quick winter squall that damages everything.

Key Check

English Language Arts I

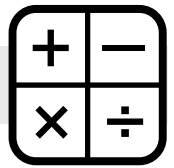
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1	22384	B	EI.RL.3	2			MC	727	

English Language Arts III

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	22379	B	EIII.RL.4	2			MC	345	

English Language Arts IV

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	22382	A	EIV.RL.5	2			MC	144	

**Sample Question**

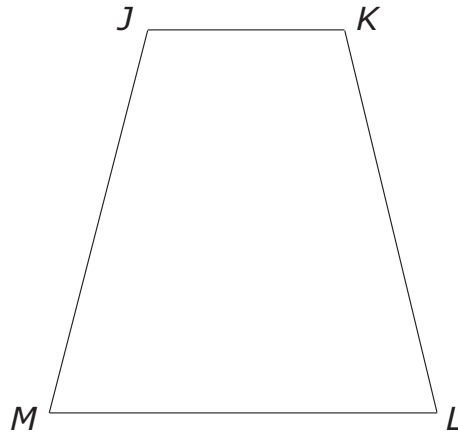
Which expression is equivalent to $\log_5\left(\frac{3}{4}\right)^2$?

- A $\log_5 6 - \log_5 8$
- B $2\log_5 3 - 2\log_5 4$
- C $\log_5 9 \div \log_5 16$
- D $2\log_5 3 \div \log_5 4$



Sample Question

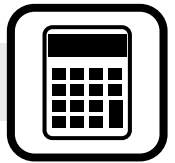
A plot of land is in the shape of an isosceles trapezoid with $JK = 750$ ft, $ML = 1,750$ ft, and $JM = 1,300$ ft.



1 acre = 43,560 square feet

What is the **approximate** area of the plot?

- A 68.9 acres
- B 37.3 acres
- C 34.4 acres
- D 30.1 acres



Sample Question

Sam is driving on a straight highway when he decides to turn onto a side road.

- The side road makes an angle of 32° with the highway.
- Sam drives north on the side road for 862 meters.
- He makes a turn at an angle of 70° east of north onto another road that rejoins the highway.

To the nearest meter, how far is Sam from the point where he left the highway when he rejoins it?

- A 828 meters
- B 1,316 meters
- C 1,450 meters
- D 1,486 meters



Sample Question

Which function, in respect to $\sin(x)$, represents an amplitude of 2 units, a vertical shift of 1 unit, and a phase shift of 3 units to the left?

A $y = 2\sin(x - 3) + 1$

B $y = 2\sin(x + 3) + 1$

C $y = 2\sin(x - 1) + 3$

D $y = 2\sin(x + 1) + 3$



Sample Question

Desmond and Gloria are playing a game in which they each select a red, green, or blue card. They do not know which color card the other person selects. The matrix below shows the payoffs Desmond receives for each outcome of the game based on the colors of the selected cards.

		Gloria		
		Red	Green	Blue
Desmond	Red	300	200	100
	Green	200	-100	-400
	Blue	400	-100	-200

Which is true for Desmond?

- A An optimal strategy exists because a saddle point exists in the payoff matrix.
- B An optimal strategy exists because a saddle point does not exist in the payoff matrix.
- C An optimal strategy does not exist because a saddle point exists in the payoff matrix.
- D An optimal strategy does not exist because a saddle point does not exist in the payoff matrix.

Key Check

SCS Algebra II

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	1637	B	1.01	1			MC		

SCS Geometry

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	2034	C	1.02a	1			MC		

Precalculus

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	6794	B	2.02.c	2			MC		CA

Advanced Functions and Modeling

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	5579	B	2.04.a	1			MC		CA

Discrete Mathematics

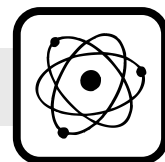
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1	17616	A	2.02.d	1			MC		CA



Sample Question

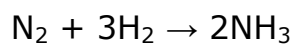
Which change can cause an increase in the average global temperature by increasing the amount of carbon dioxide and methane in the atmosphere?

- A a decrease in solar activity
- B an increase in hurricane activity
- C a decrease in the number of earthquakes
- D an increase in the number of volcanic eruptions



Sample Question

This balanced chemical equation represents a reaction between nitrogen gas and hydrogen gas:



Which type of chemical reaction is represented by the equation?

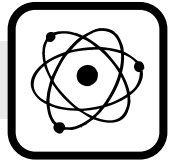
- A single replacement
- B double replacement
- C decomposition
- D synthesis



Sample Question

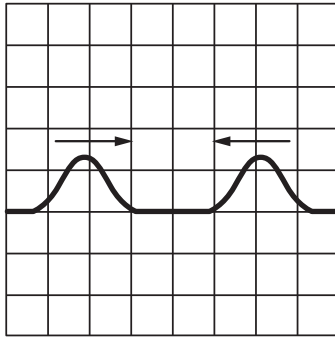
Why do the first ionization energies of the elements increase going across the periodic table?

- A Inner electrons at lower energy levels block the protons' force of attraction toward the nucleus.
- B The atomic radius decreases, and outer electrons are closer and strongly attracted to the nucleus.
- C Electrons are further from the nucleus, and it is harder to remove the outermost electron.
- D The atomic radius increases, and outer electrons are closer and strongly attracted to the nucleus.



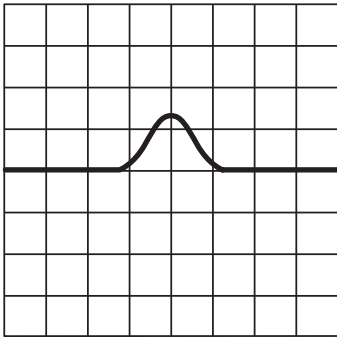
Sample Question

The diagram represents two pulses moving toward each other on a rope.

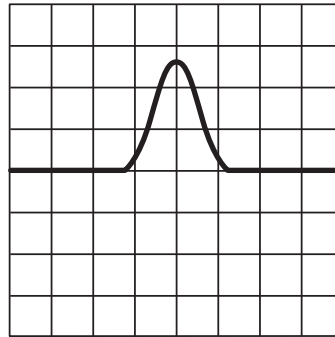


What happens when the pulses meet?

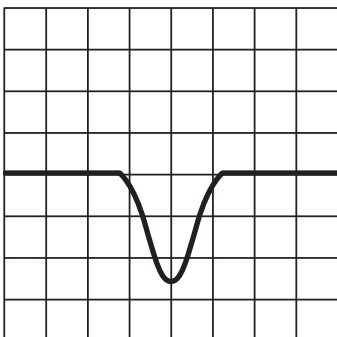
A



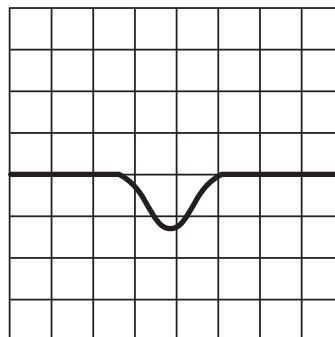
B



C



D



Key Check

Earth and Environmental Science

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	8297	D	EEn.2.6.2		2, 2		MC		

Physical Science

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	3409	D	PSc.2.2.5		2, 2		MC		

Chemistry

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	20920	B	Chm.1.3.1		2, 2		MC		

Physics

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	2469	B	Phy.2.2.2		4, 2		MC		DI



Sample Question

Upon testimony of these facts an associate justice of the Supreme Court of the United States notified to me that "in the counties of Washington and Allegheny, in Pennsylvania, laws of the United States were opposed, and the execution thereof obstructed, by combinations too powerful to be suppressed by the ordinary course of judicial proceedings or by the powers vested in the marshal of that district.

On this call, momentous in the extreme, I sought and weighted what might best subdue the crisis. On the one hand the judiciary was pronounced to be stripped of its capacity to enforce the laws; crimes which reached the very existence of social order were perpetrated without control; the friends of Government were insulted, abused, and overawed into silence or an apparent acquiescence; and to yield to the treasonable fury of so small a portion of the United States would be to violate the fundamental principle of our Constitution, which enjoins that the will of the majority shall prevail.

Excerpt from George Washington's speech to Congress
November 19, 1794

How did Washington's response to the Whiskey Rebellion, as seen in the above excerpt, show the strength of the federal government?

- A It compelled the rebels to join the national army.
- B It required local authorities to enforce the will of the majority.
- C It reinforced the First Amendment protections of the farmers' right to rebel.
- D It demanded that national troops stop the rebellion rather than a local militia.



Sample Question

The term "railroad" as used in this act shall include all bridges and ferries used or operated in connection with any railroad, and also all the road in use by any corporation operating a railroad, whether owned or operated under a contract, agreement, or lease; and the term "transportation" shall include all instrumentalities of shipment or carriage. All charges made for any service rendered or to be rendered in the transportation of passengers or property as aforesaid, or in connection therewith, or for the receiving, delivering, storage, or handling of such property, shall be reasonable and just; and every unjust and unreasonable charge for such service is prohibited and declared to be unlawful.

Interstate Commerce Act, 1887

Which group would have strongly supported passage of the Interstate Commerce Act (1887)?

- A farmers, because this act sought to abolish abuses in railroad freight charges
- B factory workers, because this act established a federal transportation system
- C recent immigrants, because this act gave them greater access to smaller towns in America
- D miners, because this act established strict transportation and work-safety codes



Sample Question

What purpose does the National Guard serve in resolving conflict?

- A The National Guard is limited to acting as an emergency police force for state governors.
- B The National Guard assists the militaries and police forces of allied nations as a foreign attache.
- C The National Guard assists all levels of government during both domestic and foreign emergencies.
- D The National Guard is limited to protecting against foreign incursion on American soil and policing federal lands.



Sample Question

Why were the Code of Hammurabi of Babylon, the Twelve Tables of Rome, and the Justinian Code of the Byzantine Empire needed?

- A They created order for ancient societies.
- B They created rules of conduct for military generals and officers.
- C They created examples of religious doctrine for societal rituals and ceremonies.
- D They created credentials for safe passage between empires.

Key Check

American History I

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	872	D	AMH1.H.2.1		4, 2		MC		

American History II

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	596	A	AMH2.H.4.2		4, 2		MC		

Civics and Economics

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	8046	C	CE.C&G.5.3		4, 2		MC		

World History

QID	ItemID	Key	Stand	DOK	CK	TS	Type	SelID	Cat
1	8358	A	WH.2.3		2, 2		MC		

ACKNOWLEDGMENTS

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