

Released Form

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NC Math 1

North Carolina End-of-Course Assessment



Public Schools of North Carolina

Department of Public Instruction | State Board of Education

Division of Accountability Services/North Carolina Testing Program

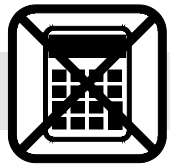
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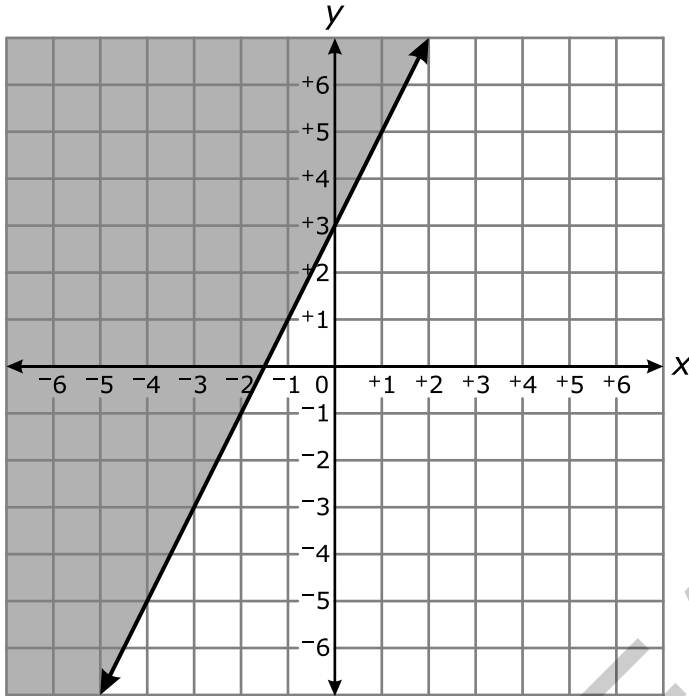
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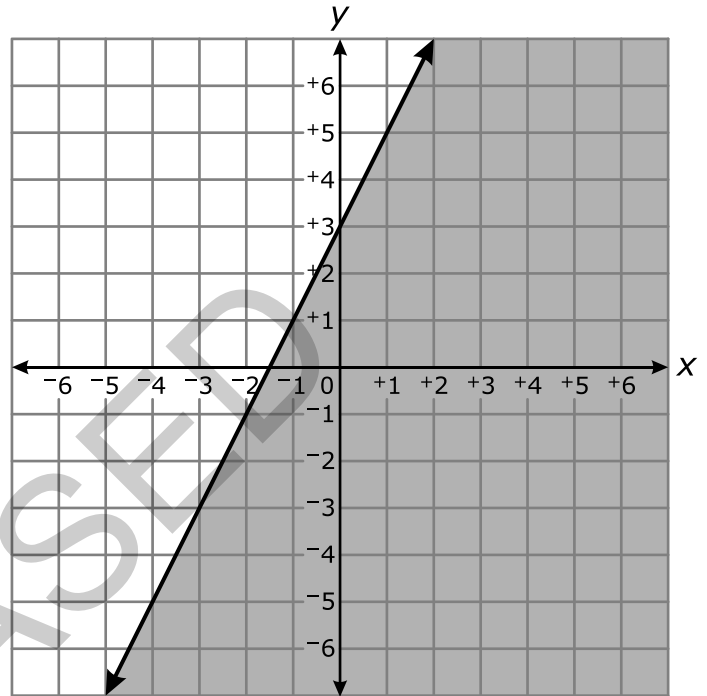


1 Which choice is the graph of $y \geq 2x + 3$?

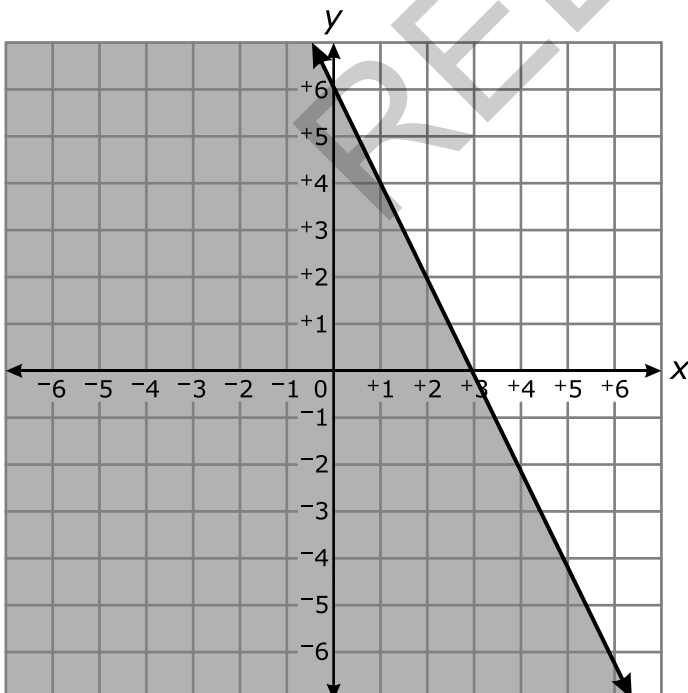
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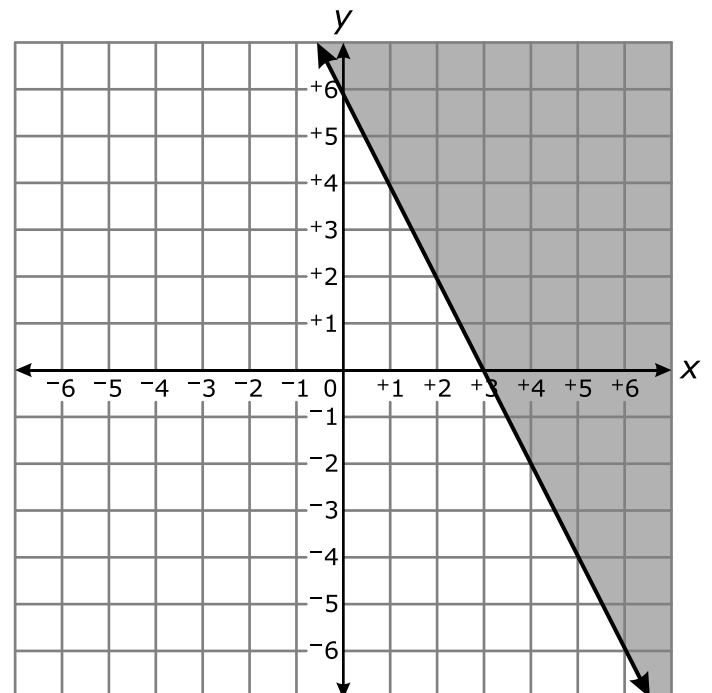
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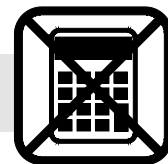


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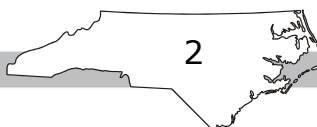
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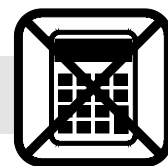




- 2 A city uses the function $f(x) = 1,200(1.30)^x$ to predict its population in x years. By what rate is the population predicted to grow each year?
- A 130%
 - B 70%
 - C 30%
 - D 13%

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Questions 3 and 4 require you to write your answers in the boxes. Write only one number or symbol in each box.

- 3 What is the positive value of x in this equation?

$$x^2 - 22 = -6$$

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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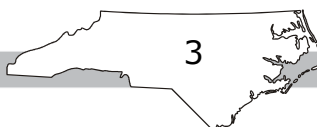
- 4 A system of equations is shown.

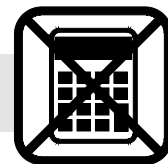
$$\begin{aligned} 2x + y &= 7 \\ -2x + 3y &= -3 \end{aligned}$$

What is the y -value of the solution to the system?

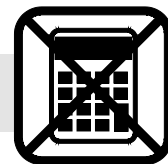
Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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- 5 Mary has a total of 12 coins. Some of the coins are nickels, and the rest are dimes. Let n represent the number of nickels, and let d represent the number of dimes. The total value of the coins is \$0.85. Which system of equations could be used to find the number of nickels and dimes Mary has?
- A $n + d = 12$
 $5n + 10d = 0.85$
- B $n + d = 12$
 $0.05n + 0.10d = 0.85$
- C $n + d = 0.85$
 $5n + 10d = 12$
- D $n + d = 0.85$
 $0.05n + 0.10d = 12$
- 6 An automobile mechanic uses the function $y = 30x + 100$ to estimate the cost of repairing a car, where x is the estimated number of hours the repair will require. What is the meaning of the slope of the graph of the function?
- A The mechanic charges a per-hour rate of \$30.
- B The mechanic charges a per-hour rate of \$100.
- C The mechanic charges a flat fee of \$30 regardless of how many hours the repair requires.
- D The mechanic charges a flat fee of \$100 regardless of how many hours the repair requires.



Questions 7 and 8 require you to write your answers in the boxes. Write only one number or symbol in each box.

- 7 Tyson has a part-time job and mows lawns for additional money. The function $f(x) = 20x + 220$ models his total monthly earnings if he mows x lawns. How much would Tyson's total monthly earnings be for a month that he mows 6 lawns?

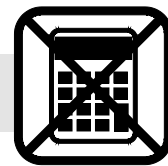
Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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- 8 A function f is defined by $f(x) = 2^x + 4x$. What is the value of $f(3)$?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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9 A formula for work done moving an object is $W = Fd$.

- F represents the amount of force used.
- d represents the distance moved.

Which formula could be used to determine the amount of force?

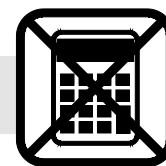
A $F = dW$

B $F = W - d$

C $F = \frac{d}{W}$

D $F = \frac{W}{d}$

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Questions 10 and 11 require you to write your answers in the boxes. Write only one number or symbol in each box.

- 10 A company rents bicycles to customers. The company charges an initial fee plus an hourly rate. This table shows the total cost to rent a bicycle for different amounts of time.

Hours	Total Cost
2	\$8
6	\$20
10	\$32

What is the initial fee, in dollars, that the company charges to rent a bicycle?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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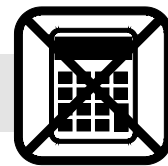
- 11 The function $f(x) = -2x^2 + 10x$ models the height above the ground, in cm, of a jumping frog where x is the horizontal distance, in cm, the frog traveled during the jump. What was the horizontal distance, in cm, that the frog traveled during its jump?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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Go to the next page.



12 A group is holding a fundraising dinner.

- The goal of the group is to have a total profit of \$4,800 from the dinner.
- Each adult ticket the group sells results in a profit of \$12.
- Each children's ticket the group sells results in a profit of \$6.
- The group can sell a maximum of 400 tickets.

Which system of inequalities can be used to determine the number of adult tickets, x , and children's tickets, y , the group must sell to reach its goal?

A $12x + 6y > 4,800$
 $x + y \leq 400$

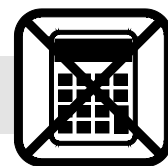
B $12x + 6y > 4,800$
 $x + y < 400$

C $12x + 6y \geq 4,800$
 $x + y \leq 400$

D $12x + 6y \geq 4,800$
 $x + y < 400$

13 An artist draws cartoons for a newspaper. The function $f(x) = 250x + 200$ models the amount of money the artist earns each week if x cartoons are used in the newspaper. What is the meaning of the y -intercept of the graph of the function?

- A The artist earns \$250 for every cartoon the newspaper uses.
- B The artist earns a base salary of \$200 per week.
- C The artist draws 250 cartoons each week.
- D The artist draws 200 cartoons each week.



Questions 14 and 15 require you to write your answers in the boxes. Write only one number or symbol in each box.

- 14 A line, $y = mx + b$, passes through the point (2, 5) and is perpendicular to $y = -\frac{1}{2}x + 4$. What is the value of b ?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

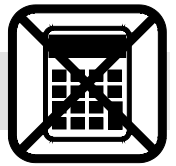
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- 15 What is the value of n in the equation shown?

$$\left(\frac{x^4 y^5}{x^{-2} y^3} \right)^n = x^{18} y^6$$

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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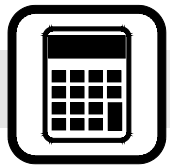
This is the end of the calculator inactive test questions.

Directions:

- 1. Look back over your answers for the calculator inactive questions. You will not be able to go back and work on these questions once you are given a calculator.**
- 2. Make sure all your answers are entered appropriately in your book.**
- 3. Raise your hand to let your teacher know you are ready to begin the calculator active test questions.**
- 4. Do not begin work on the calculator active test questions until your teacher has given you a calculator.**

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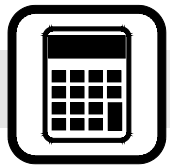


16 This is a copy of an online technology-enhanced item.

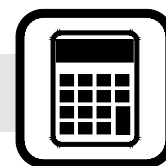
Place (click and drag) each quadratic equation into the appropriate column in the table.

only positive solutions	only negative solutions	positive and negative solutions
$x^2 - 7x + 12 = 0$	$x^2 + 3x + 2 = 0$	$x^2 - 2x - 15 = 0$

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- 17 The length of a rectangle is 6 units greater than the width, x . What is the perimeter of the rectangle?
- A $x^2 + 6x$
- B $2x + 6$
- C $4x + 6$
- D $4x + 12$
- 18 For which x -value are the y -values of $y = 3x - 2$ and $y = 15(0.75)^x$ ***approximately*** equal?
- A -2.73
- B -0.24
- C 2.86
- D 6.59



Questions 19 and 20 require you to write your answers in the boxes. Write only one number or symbol in each box.

- 19 The width of a rectangle is 4 inches less than the length. The perimeter of the rectangle is 28 inches. What is the length of the rectangle in inches?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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- 20 Julia wants to buy frozen yogurt.

- She has \$4.50 to spend.
- The frozen yogurt shop charges \$1.25 for a container.
- The shop charges an additional \$0.48 per ounce of yogurt.
- All prices include sales tax.

What is the maximum whole number of ounces of frozen yogurt Julia can buy?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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- 21 Caleb dropped a paper airplane from different heights and recorded the amount of time it took the airplane to hit the ground. He determined that the equation $y = 0.2x - 0.1$, where x is drop height in centimeters and y is the amount of time, in seconds, taken to hit the ground, modeled the data well. What is the meaning of the slope of the equation?
- A The airplane stays in the air an additional 0.2 second for every 1-cm increase in drop height.
 - B The airplane stays in the air 0.2 second less for every 1-cm increase in drop height.
 - C The airplane stays in the air an additional 0.1 second for every 1-cm increase in drop height.
 - D The airplane stays in the air 0.1 second less for every 1-cm increase in drop height.

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- 22 This table shows the amount of money a car dealership spent on advertising in different months and the number of cars sold in those months.

Month	Money Spent on Advertising	Cars Sold
January	\$30,000	50
February	\$60,000	90
March	\$48,000	73
April	\$42,000	69
May	\$56,000	87

What is the correlation coefficient, to the nearest thousandth, when the number of cars sold is modeled as a linear best-fit function of the amount of money spent on advertising?

- A 0.989
- B 0.991
- C 0.994
- D 0.996



Questions 23 and 24 require you to write your answers in the boxes. Write only one number or symbol in each box.

- 23 What is the solution to the equation shown?

$$3(2m - 9) = 9(4m + 8)$$

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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- 24 The function $c(x) = 300(0.75)^x$ models the cost of a video game system x years after it was released. How much did the video game system cost 2 years after it was released?

(Note: Express answer as dollars.cents.)

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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Three systems of equations are shown in the table below.

Place (click and drag) the choices that describe the number of solutions of each system into the appropriate column in the table.

$y = \frac{1}{6}x + 6$ $6y = 48 - x$	$y = \frac{1}{8}x + 6$ $8y = 64 + x$	$y = \frac{1}{3}x + 6$ $6y = 2x + 36$
no solution	one solution	infinitely many solutions



- 26 A rectangular playground has a length that is 5 feet greater than twice the width, w . The playground will be enlarged. One of the dimensions of the new playground will be 4 feet greater than the length of the old playground. The other dimension of the new playground will be three times the width of the old playground. How much more area, in square feet, will the new playground have?
- A $2w^2 + 5w$
- B $4w^2 + 13$
- C $4w^2 + 22w$
- D $8w^2 + 32w$
- 27 This table shows the total amount of money that Christina had saved at the end of each week for 5 weeks.

Week	Total Amount Saved
1	\$42
2	\$68
3	\$94
4	\$120
5	\$146

Which function can be used to determine the amount of money that Christina will have saved after n weeks, assuming the pattern continues?

- A $f(n) = n + 26$
- B $f(n) = 26n + 16$
- C $f(n) = 26n + 42$
- D $f(n) = 42n$



- 28 A car dealership's sales for one month are shown in this table.

\$22,000	\$19,500	\$22,000
\$25,000	\$22,000	\$18,000
\$19,000	\$20,000	\$75,000
\$22,000	\$17,500	\$21,500

Which statement is true?

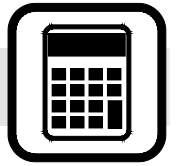
- A The outlier causes the data distribution to be more concentrated near the mean.
- B The outlier causes the data distribution to be more symmetrical.
- C The outlier causes the data distribution to be strongly skewed to the left.
- D The outlier causes the data distribution to be strongly skewed to the right.

- 29 A set of data is shown.

x	y
0	3
1	17
2	74
3	376
4	1,873

Which choice **best** models the data?

- A $y = 3^x$
- B $y = 5^x$
- C $y = 3(5)^x$
- D $y = 5(3)^x$

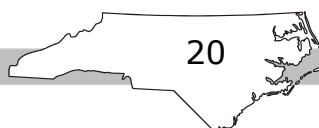


30 A data set is shown.

x	y
25	224
30	258
45	357
60	432
80	567
100	681

Which data point is closest to the graph of the linear best-fit equation of the data?

- A (25, 224)
- B (30, 258)
- C (80, 567)
- D (100, 681)





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Four recursive formulas are shown in the table below. Place (click and drag) the explicit form of each equation into the appropriate column in the table.

$a_{n+1} = a_n + 3$ $a_1 = 5$	$a_{n+1} = a_n + 2$ $a_1 = 3$	$a_{n+1} = a_n + 1$ $a_1 = 3$	$a_{n+1} = a_n - 2$ $a_1 = 2$

$a_n = n + 2$	$a_n = 3n + 2$	$a_n = -2n + 4$	$a_n = 2n + 1$
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32 The midpoint of $\overline{PQ}$ is M . If P is located at $(-5, 2)$ and M is located at $(8, -8)$, what are the coordinates for Q ?

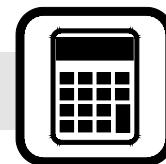
- A $(1.5, -13)$
- B $(1.5, -14)$
- C $(11, -14)$
- D $(21, -18)$

33 A data set is shown.

5, 7, 8, 9, 12, 12, 14, 15

How would adding a data point of 44 affect the set?

- A The mean would increase by 3.75, and the median would remain the same.
- B The mean would remain the same, and the median would increase by 3.75.
- C The mean would increase by 3.75, and the median would increase by 1.50.
- D The mean would increase by 1.50, and the median would remain the same.



Questions 34 and 35 require you to write your answers in the boxes. Write only one number or symbol in each box.

- 34 Points $F(h, k)$ and $G(4, 8)$ are adjacent vertices of parallelogram $EFGH$. Point F is located up and to the left of point G . Side FG has a slope of $-\frac{4}{3}$ and a length of 5. What is the value of k ?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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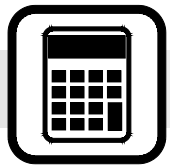
- 35 An expression is shown.

$$((x^3)^5)^3$$

When the expression is written in the form x^m , what is the value of m ?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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- 36 Karen dropped a ball from different heights. This table shows the height from which she dropped the ball and the height of the ball's first bounce.

Drop Height (inches)	Bounce Height (inches)
20	15
30	24
40	33
50	42
60	51

What was the average rate of change in the bounce height as drop height changed from 20 inches to 60 inches?

- A 0.90
- B 0.85
- C 0.60
- D 0.25

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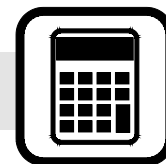


- 37 This table shows the price of a movie ticket in five different years.

Year	Price
1995	\$6.25
1999	\$6.85
2003	\$7.45
2007	\$8.05
2011	\$8.65

Which model is consistent with the data shown in the table?

- A a linear model in which the price of a movie ticket increases by \$0.15 each year
- B an exponential model in which the price of a movie ticket increases by \$0.15 each year
- C a linear model in which the price of a movie ticket increases by 15% each year
- D an exponential model in which the price of a movie ticket increases by 15% each year
- 38 Which points lie on a line that is parallel to the graph of $y = 7 - 4x$?
- A $(-4, 6)$ and $(-5, 2)$
- B $(-4, 2)$ and $(-5, 6)$
- C $(6, -4)$ and $(2, -5)$
- D $(2, -4)$ and $(6, -5)$



Questions 39 and 40 require you to write your answers in the boxes. Write only one number or symbol in each box.

- 39 Gloria threw a ball straight up into the air from a porch. The height of the ball, in feet, can be modeled by the function $h(x) = -16x^2 + 32x + 9$. What is the maximum height, in feet, of the ball?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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- 40 What is the minimum positive integer value of x , such that the value of $y = 2.5^x$ exceeds the value of $y = 5x$?

Only 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., -, and / are allowed in your answer. Mixed numbers are entered by adding a space after the whole number. Spaces are only allowed between whole numbers and fractions.

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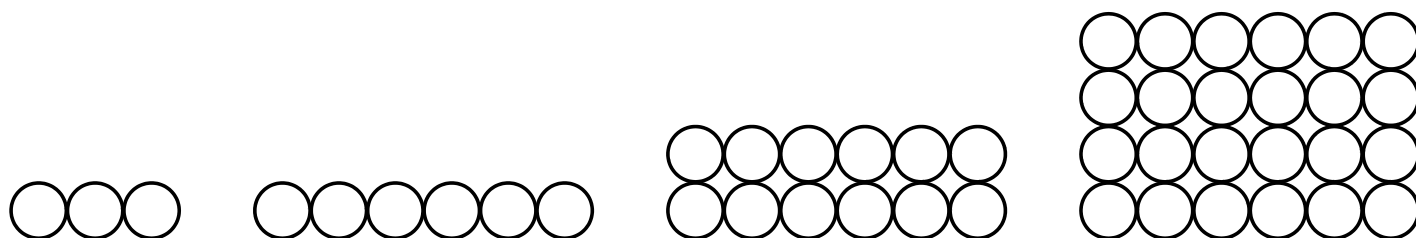
Place (click and drag) one option from each of the lists below into its corresponding box to create an equation that passes through the point (6, 10) and is perpendicular to $2x + 4y = 10$.

$$y = \overset{1}{\boxed{}} \overset{2}{\boxed{}} \overset{3}{\boxed{}}$$

1	2	3
$-2x$	+	2
$-\frac{1}{2}x$	-	6
$\frac{1}{2}x$		8
$2x$		10



42 A pattern is shown.



Which function can be used to determine the number of circles in the n th figure in the pattern?

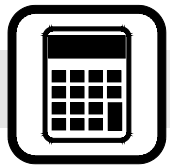
- A $a_n = 3(2)^n$
- B $a_n = 3(2)^{n-1}$
- C $a_n = 3 + 2^n$
- D $a_n = 3 + 2^{n-1}$

43 Carrie needs to buy a hammer and nails.

- The function $g(x) = 0.06x + 8.50$ models the cost to purchase a hammer and x nails at a store.
- The function $h(x) = 0.05x + 8.25$ models the cost to purchase a hammer and x nails from a second store.

Which function models the amount of money, $m(x)$, Carrie will save by purchasing a hammer and x nails from the second store instead of the first store?

- A $m(x) = 0.01x + 0.25$
- B $m(x) = 0.05x + 0.25$
- C $m(x) = 0.06x + 0.25$
- D $m(x) = 0.11x + 0.25$



- 44 Joey released a balloon into the air. This table shows the altitude of the balloon at various times after he released it.

Time (minutes)	Altitude (feet)
0	6
3	40
6	226
9	1,270
12	7,108

What is the **approximate** average rate of change in the altitude of the balloon between 6 and 12 minutes?

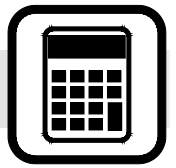
- A 590 feet per minute
- B 970 feet per minute
- C 1,150 feet per minute
- D 1,430 feet per minute



45 This is a copy of an online technology-enhanced item.

Place (click and drag) one option from each of the lists below into its corresponding box to create an expression that is equivalent to $18x^2 - 18x - 8$.

1	2	3	4
1	2	3	4
(2x	- 2)	(2x	- 8)
(6x	- 1)	(3x	- 4)
(9x	+ 1)	(9x	+ 4)
	+ 2)		+ 8)



- 46 A rectangle has a length of x units and a width of $(x - 4)$ units. The length will be increased by 3 units, and the width will be increased by 1 unit, creating a new rectangle. Which equation represents the area, y , of the new rectangle?

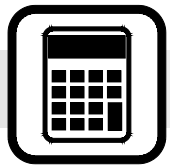
- A $y = x^2 - 1$
- B $y = x^2 - 9$
- C $y = x^2 - 2x - 15$
- D $y = x^2 - 6x + 9$

- 47 Two functions are shown.

$$f(x) = 4x + 5$$
$$g(x) = -2x - 7$$

What is the value of x when $f(x) = g(x)$?

- A -2
- B -0.5
- C 0.5
- D 2



- 48 This table shows the population of a city in different years.

Year	Population
2000	25,000
2002	35,000
2004	40,000
2006	53,000
2008	67,000

Which year was the population farthest from the number predicted by the linear best-fit equation for the data?

- A 2000
- B 2002
- C 2004
- D 2008

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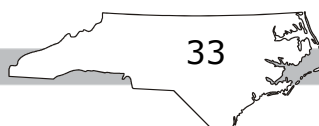


- 49 This table shows the population of nine different cities and the number of parks in each city.

Number of Parks	Population
1	100,500
2	130,500
3	150,800
4	200,800
5	250,100
6	280,800
7	330,200
8	370,100
9	440,600

According to the linear best-fit model for the data, to the nearest hundred, what is the predicted population of a city with 15 parks?

- A 628,200
- B 670,200
- C 735,700
- D 891,800



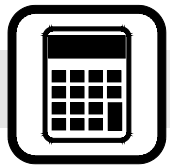


- 50 This table shows the number of hours that 10 students practiced driving and their scores on a written driving test.

Hours Driving (x)	3	5	2	6	7	1	2	7	1	7
Test Scores (y)	80	90	75	60	90	90	75	85	80	100

Which statement describes the relationship between the number of hours students practiced driving and their test scores?

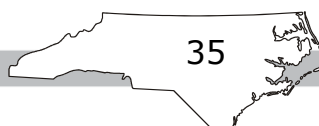
- A There is a strong negative relationship.
- B There is a strong positive relationship.
- C There is a weak negative relationship.
- D There is a weak positive relationship.

**Directions:**

This is the end of the NC Math 1 released form.

- 1. Look back over your answers for the calculator active questions only.**
- 2. Make sure all your answers are entered appropriately in the book.**
- 3. Put all of your papers inside your test book and close your test book.**
- 4. Place your calculator on top of the test book.**
- 5. Stay quietly in your seat until your teacher tells you that testing is finished.**
- 6. Remember, teachers are not allowed to discuss items from the test with you, and you are not allowed to discuss with others any of the test questions or information contained within the test.**

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NC MATH 1 RELEASED FORM

NC Math 1 Released Form 2026 Answer Key

Table 1

Calculator Inactive



Question Number	Question Type ¹	Key	DOK ²	Standard
1	MC	A	2	A-REI.12
2	MC	C	2	F-IF.8.b
3	GR	4	1	A-REI.4
4	GR	1	1	A-REI.6
5	MC	B	2	A-CED.3
6	MC	A	2	F-LE.5
7	GR	340	1	F-IF.2
8	GR	20	1	F-IF.2
9	MC	D	1	A-CED.4
10	GR	2	2	F-IF.4
11	GR	5	2	F-IF.8.a
12	MC	C	3	A-CED.3
13	MC	B	1	F-LE.5
14	GR	1	2	G-GPE.5
15	GR	3	2	N-RN.2

NC MATH 1 RELEASED FORM

Calculator Active



Question Number	Question Type	Key	DOK ²	Standard
16	DD	See Table 2	1	A-APR.3
17	MC	D	2	A-APR.1
18	MC	C	2	A-REI.11
19	GR	9	2	A-CED.1
20	GR	6	2	A-CED.1
21	MC	A	2	S-ID.7
22	MC	C	1	S-ID.8
23	GR	-3.3	1	A-REI.3
24	GR	168.75	1	F-IF.2
25	DD	See Table 2	2	A-REI.6
26	MC	C	3	A-APR.1
27	MC	B	2	F-BF.1.a
28	MC	D	2	S-ID.3
29	MC	C	1	S-ID.6.c
30	MC	B	2	S-ID.6.b
31	DD	See Table 2	2	F-BF.2
32	MC	D	2	G-GPE.6
33	MC	C	2	S-ID.3
34	GR	12	3	G-GPE.4
35	GR	45	1	N-RN.2
36	MC	A	2	F-IF.6
37	MC	A	2	F-LE.1
38	MC	B	2	G-GPE.5
39	GR	25	2	F-IF.8.a

NC MATH 1 RELEASED FORM

Question Number	Question Type	Key	DOK ²	Standard
40	GR	3	1	F-LE.3
41	TD	See Table 2	2	G-GPE.5
42	MC	B	3	F-BF.1.a
43	MC	A	2	F-BF.1.b
44	MC	C	2	F-IF.6
45	TD	See Table 2	2	A-SSE.3
46	MC	B	2	A-CED.2
47	MC	A	1	A-REI.11
48	MC	C	2	S-ID.6.b
49	MC	B	2	S-ID.6.a
50	MC	D	2	S-ID.8

¹Question Type:

MC = multiple choice
 DD = drag and drop
 GR = gridded response
 TD = targeted drop

²DOK:

1 = Recall
 2 = Skill/Concept
 3 = Strategic Thinking

NC MATH 1 RELEASED FORM

Table 2

Question	Technology Enhanced Item Solution
16	$x^2 - 7x + 12 = 0$ $x^2 + 3x + 2 = 0$ $x^2 - 2x - 15 = 0$
25	One solution, no solution, infinitely many solutions
31	$a_n = 3n + 2$ $a_n = 2n + 1$ $a_n = n + 2$ $a_n = -2n + 4$
41	$2x, -, 2$
45	$(6x, +2)$ $(3x, -4)$

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