Do NOT Affix Student ID Label Here

A

Student Name _____

School Name _____

District Name/LEA _____

PARCC

Grade 7

Mathematics

Performance Based Assessment

Practice Test

B Last Name | First Name | MI

C

Place the Student ID Label Here

D Gender

◯ Female ◯ Male

E Date of Birth

Day		Month	Year			
0	0	◯ Jan		0	0	0
1	1	◯ Feb	1		1	1
2	2	◯ Mar	2		2	2
3	3	◯ Apr			3	3
	4	◯ May			4	4
	5	◯ Jun			5	5
	6	◯ Jul			6	6
	7	◯ Aug			7	7
	8	◯ Sep			8	8
	9	◯ Oct		9	9	9
		◯ Nov				
		◯ Dec				

School Use Only

F State Student Identifier

194839-001:321 Printed in the USA by Pearson ISD11311

CC

Unit 1

Directions:

Today, you will be taking Unit 1 of the Grade 7 Mathematics Practice Test.

Read each question carefully. Some questions will ask you to choose one correct answer, while others will ask you to choose more than one correct answer. Mark your answers by filling in the circles in your Test Booklet for the answers you choose.

If a question asks you to show or explain your work, you must do so to receive full credit. Be sure to:

- Write your response in the box provided in your Test Booklet.
- Label each part of your work if a question has multiple parts, and clearly identify your answer for each part.
- Respond in the box provided. Crossed-out work, writing that falls outside of the box, or work on scratch paper will not be scored.

Do not make any stray marks on the Test Booklet. If you need to change an answer, be sure to erase your first answer completely.

Calculator Directions:

In the first section of this unit, you may not use a calculator. You will not be allowed to return to the non-calculator section of the test after you have started the calculator section of the test.

If you do not know the answer to a question, skip it and go on. If you finish the non-calculator section of Unit 1 early, you may review your answers and any questions you may have skipped in the non-calculator section ONLY.

Do NOT go on to the calculator section in Unit 1 until directed to do so.

GO ON ▶

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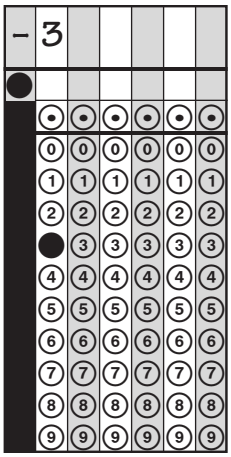
SERIAL #

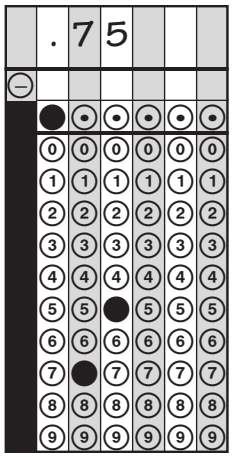
Directions for Completing the Answer Grids

1. Work the problem and find an answer.
2. Write your answer in the boxes at the top of the grid.
   - Print only one digit or symbol in each box. You may not need all the boxes to enter an answer, but do not leave a blank box in the middle of an answer.
3. Under each box in which you wrote your answer, fill in the bubble that matches the number or symbol you wrote above.
   - Fill in one and ONLY one bubble for each box. Do not fill in a bubble under an unused box.
   - Fill in each bubble by making a solid mark that completely fills the circle.
   - Fractions cannot be entered into an answer grid and will not be scored. Enter fractions as decimals.
4. See below for examples on how to correctly complete an answer grid.

To answer −3 in a question, fill in the answer grid as shown on the left in your Test Booklet.



To answer .75 in a question, fill in the answer grid as shown on the right in your Test Booklet.



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GO ON TO NEXT PAGE

GO ON ▶

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SERIAL #

Unit 1 - Section 1 (Non-Calculator)

This unit has two sections: a non-calculator and a calculator section.

You will now take the first section of this unit in which you may not use a calculator. You will not be allowed to return to the non-calculator section of the test after you have started the calculator section. You will need to finish both sections within the allotted testing time.

Once you finish the non-calculator section, read the directions in your Test Booklet on how to continue.

GO ON ▶

1. Which equation has a constant of proportionality equal to 4?

Ⓐ $4y = 4x$

Ⓑ $4y = 12x$

Ⓒ $3y = 4x$

Ⓓ $3y = 12x$

2. Which expressions are equivalent to $-3 \cdot \frac{4}{-5}$?

Select **each** correct answer.

Ⓐ $\frac{-3}{-5} \cdot 4$

Ⓑ $-\frac{3}{5} \cdot 4$

Ⓒ $\frac{-3 \cdot 4}{-3 \cdot (-5)}$

Ⓓ $-3 \cdot 4 \cdot \frac{-1}{5}$

Ⓔ $\frac{3}{5} \cdot 4$

Ⓕ $\frac{3 \cdot 4}{5}$

GO ON ▶

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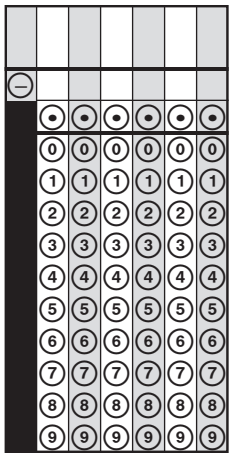
SERIAL #

3. An airplane's altitude changed −378 feet over 7 minutes. What was the mean change of altitude in feet per minute?

Enter your answer in the box.



4. Which expression is equivalent to $\frac{1}{4}(8 - 6x + 12)$?

Ⓐ $\frac{7}{2}x$

Ⓑ $-\frac{13}{2}x$

Ⓒ $-6x + 14$

Ⓓ $-\frac{3}{2}x + 5$

GO ON ▶

5. The numbers of parts produced by three different machines are shown in the table.

Numbers of Machine Parts

Minutes	Machine Q	Machine R	Machine S
1	9	8	6
3	18	24	18
9	27	72	52

Only one of the machines produces parts at a constant rate. Which equation represents y, the number of parts produced in x minutes, for the one machine that produces parts at a constant rate?

Ⓐ $y = 3x$

Ⓑ $y = 6x$

Ⓒ $y = 8x$

Ⓓ $y = 9x$

GO ON ▶

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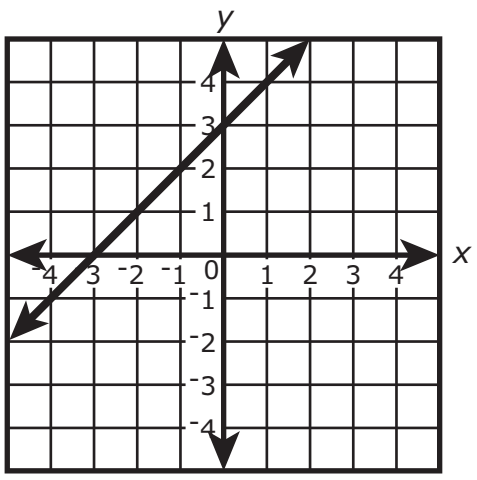
SERIAL #

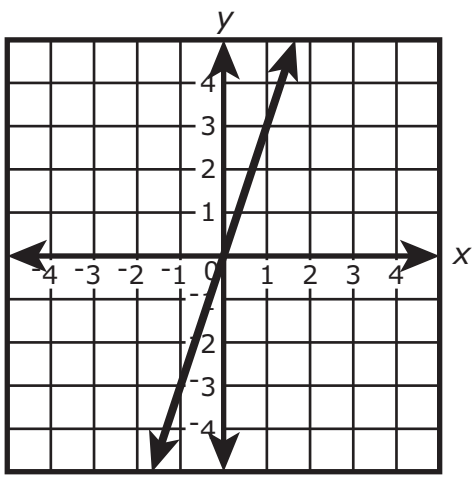
6. Which relationships have the same constant of proportionality between y and x as in the equation $y = \frac{1}{3}x$?

Select **each** correct answer.

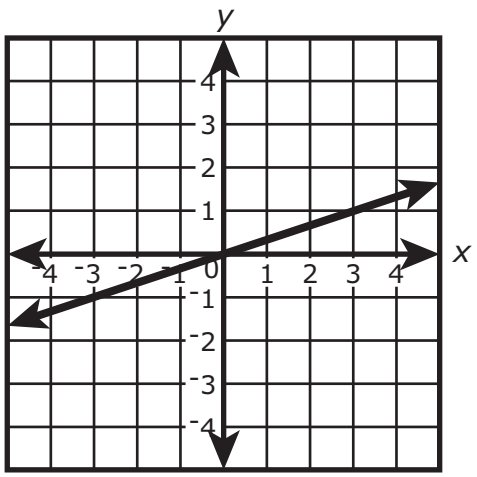
Ⓐ



Ⓑ



Ⓒ



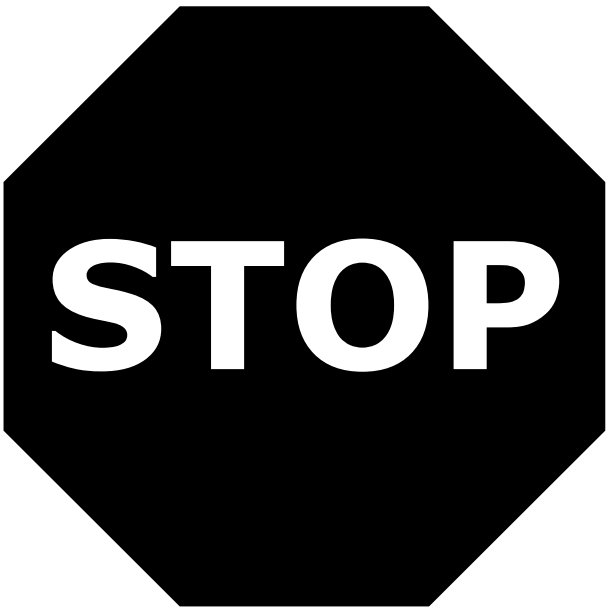
Ⓓ

x	−1.5	0	1.6	9.7
y	−4.5	0	4.8	29.1

Ⓔ

x	−5.4	−2.7	1.5	2.4
y	−1.8	−0.9	0.5	0.8

STOP



You have come to the end of the non-calculator section in Unit 1 of the test.

- **If you have time, review your answers in the non-calculator section ONLY. You will not be allowed to return to the non-calculator section once you have received your calculator.**
- **Then, raise your hand to receive your calculator before going on to the calculator section.**

STOP

PLEASE DO NOT WRITE IN THIS AREA

SERIAL #

Unit 1 - Section 2 (Calculator)

Once you have received your calculator, continue with the calculator section.

GO ON ▶

7. A machine packs boxes at a constant rate of $\frac{2}{3}$ of a box every $\frac{1}{2}$ minute.

What is the number of boxes per minute that the machine packs?

Ⓐ $\frac{1}{3}$

Ⓑ $\frac{3}{4}$

Ⓒ $1\frac{1}{6}$

Ⓓ $1\frac{1}{3}$

8. A right triangle has legs measuring 4.5 meters and 1.5 meters.

The lengths of the legs of a second triangle are proportional to the lengths of the legs of the first triangle.

Which could be the lengths of the legs of the second triangle?

Select **each** correct pair of lengths.

Ⓐ 6 m and 2 m

Ⓑ 8 m and 5 m

Ⓒ 7 m and 3.5 m

Ⓓ 10 m and 2.5 m

Ⓔ 11.25 m and 3.75 m

GO ON ▶

Use the information provided to answer Part A and Part B for question 9.

Rebecca and Megan are shopping at a store that sells jewelry, scarves, and purses. The cost of all the items at the store include tax.

9. Part A

Rebecca buys some scarves that cost \$5 each and 2 purses that cost \$12 each. The cost of Rebecca's total purchase is \$39. What equation can be used to find n, the number of scarves that Rebecca buys?

Ⓐ $5 + 24n = 39$

Ⓑ $5n + 24 = 39$

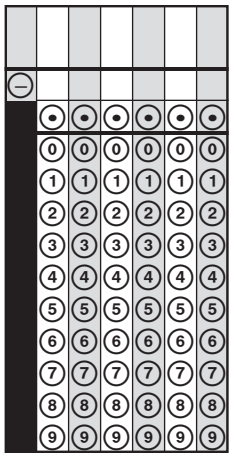
Ⓒ $(24 + 5)n = 39$

Ⓓ $24 \cdot 5 + n = 39$

Part B

Megan buys 3 bracelets and 3 necklaces. Each bracelet costs \$5. Megan pays the clerk \$40 and gets \$4 change. What is the cost, in dollars, of one necklace?

Enter your answer in the box.



GO ON ▶

Use the information provided to answer Part A and Part B for question 10.

A teacher surveyed students in four classes to determine the location for a field trip. Each student chose only one location. The table shows the number of students from each class who chose each location.

Field Trip Choices

Class	Number of Students Who Chose the Zoo	Number of Students Who Chose the Museum	Number of Students Who Chose the Planetarium
Class E	10	9	8
Class F	8	11	11
Class G	12	8	5
Class H	6	10	8

10. Part A

Determine the percent of students in each class who chose the museum. What is the order, from **least** to **greatest**,of the percents for each class?

Ⓐ Class E, Class F, Class G, Class H

Ⓑ Class G, Class E, Class F, Class H

Ⓒ Class G, Class E, Class H, Class F

Ⓓ Class H, Class F, Class E, Class G

Part B

The total number of students who chose the zoo is how many times as great as the total number of students who chose the planetarium?

Ⓐ 1

Ⓑ $1\frac{1}{18}$

Ⓒ $1\frac{1}{8}$

Ⓓ $1\frac{1}{9}$

GO ON ▶

11. Chris made at least one error as she found the value of this expression.

$$2(-20) + 3\left[\frac{5}{4}(-20)\right] + 5\left[\frac{2}{5}(50)\right] + 4(50)$$

Step 1: $2(-20) + 3(-25) + 5(20) + 4(50)$

Step 2: $(3 + 2)(-20 + -25) + (5 + 4)(20 + 50)$

Step 3: $5(-45) + 9(70)$

Step 4: $-225 + 630$

Step 5: 405

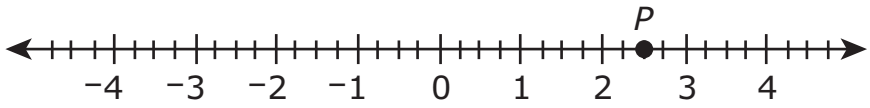
Identify the step in which Chris made her first error. After identifying the step with the first error, write the corrected steps and find the final answer.

Enter the identified step, your work, and the final answer in the space provided.

GO ON ▶

Use the information provided to answer Part A and Part B for question 12.

Point *P* is plotted on the number line.



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SERIAL #

12. Part A

Point *Q* is the opposite of point *P*. Determine the location of point *Q* on the number line. Explain how you determined the location of point *Q* on the number line.

Enter your answer and your explanation in the space provided.

Part B

Point S is located at $\frac{5}{4}$ on the number line. A student claims that the location of point S is to the right of the location of point P on the number line.

- Explain whether the student's claim is correct or incorrect.
- Write an inequality that describes the relationship between the value of point P and the value of point S.

Enter your explanation and your inequality in the space provided.

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SERIAL #

13. A scientist planted seeds in 4 sections of soil for an experiment. Not all of the seeds grew into plants. After 20 days, the scientist counted the number of plants in each of the 4 sections. The results are shown in the table.

Plant Experiment

Section	Size of Section (square feet)	Number of Plants
1	25	13
2	100	38
3	125	47
4	150	62

- Use the data in the table to determine approximately how many plants grew per square foot.
- Explain or show how you determined your approximation.
- Let y be the number of plants expected to grow in x square feet. Write an equation the scientist could use to model the relationship between y and x.

Enter your approximation, explanation, and equation in the space provided.

14. Consider the equation $5 + x = n$.

What must be true about any value of x if n is a negative number? Explain your answer. Include an example with numbers to support your explanation.

Enter your answer, your explanation, and your example in the space provided.

GO ON ▶

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SERIAL #

Use the information provided to answer Part A and Part B for question 15.

A worker has to drive her car as part of her job. She receives money from her company to pay for the gas she uses. The table shows a proportional relationship between *y*, the amount of money that the worker receives, and *x*, the number of work-related miles driven.

Mileage Rates

Distance Driven, x (miles)	Amount of Money Received, y (dollars)
25	12.75
35	17.85
40	20.40
50	25.50

GO ON ▶

15. Part A

Explain how to compute the amount of money the worker receives for any number of work-related miles. Based on your explanation, write an equation that can be used to determine the total amount of money, y, the worker receives for driving x work-related miles.

Enter your explanation and your equation in the space provided.

GO ON ▶

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Part B

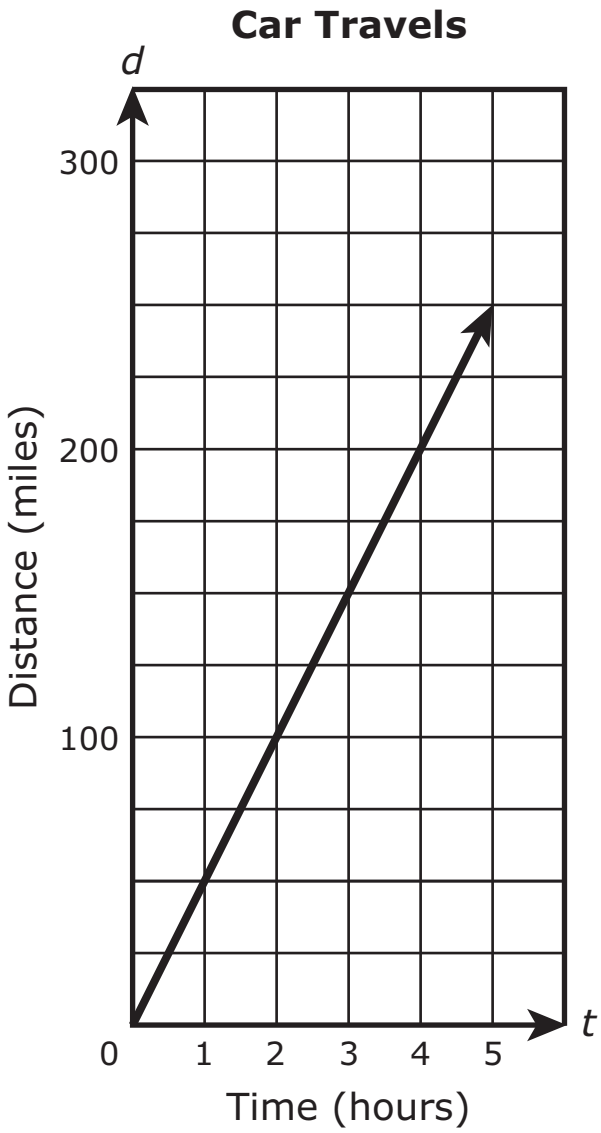
On Monday, the worker drove a total of 134 work-related and personal miles. She received $32.13 for the work-related miles she drove on Monday. What percent of her total miles driven were work-related on Monday? Show or explain your work.

Enter your answer and your work or explanation in the space provided.

GO ON ▶

16. Part A

The graph shows the distance in miles, d, a car travels in t hours.



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SERIAL #

Explain why the graph does or does not represent a proportional relationship between the variables d and t.

Enter your explanation in the space provided.

GO ON ▶

Part B

Two cars leave from the same city at the same time and drive in the same direction. The table shows the distances traveled by each car.

Two Cars Travel

Hours of Travel	Miles Traveled by Red Car	Miles Traveled by White Car
1	77	55
2	122	110
3	167	165
4	212	220
5	257	275

- Determine whether the relationship between the number of hours traveled and the number of miles traveled is proportional for each car.
- Use the table to explain how you determined your answers.
- Describe how the graph of the distance traveled by each car would support your answers.

Enter your answers and your explanations in the space provided.

17. Sal exercised by stretching and jogging 5 days last week.

- He stretched for a total of 25 minutes during the **week**.
- He jogged for an equal number of minutes each of the 5 days.
- He exercised for a total of 240 minutes.

Elena also exercised by stretching and jogging 5 days last week.

- She stretched for 15 minutes each **day**.
- She jogged for an equal number of minutes each of the 5 days.
- She exercised for a total of 300 minutes.

Determine the number of minutes Sal jogged each day last week and the number of minutes Elena jogged each day last week. Show your work or explain all the steps you used to determine your answers.

Enter your answers and your work or explanation in the space provided.

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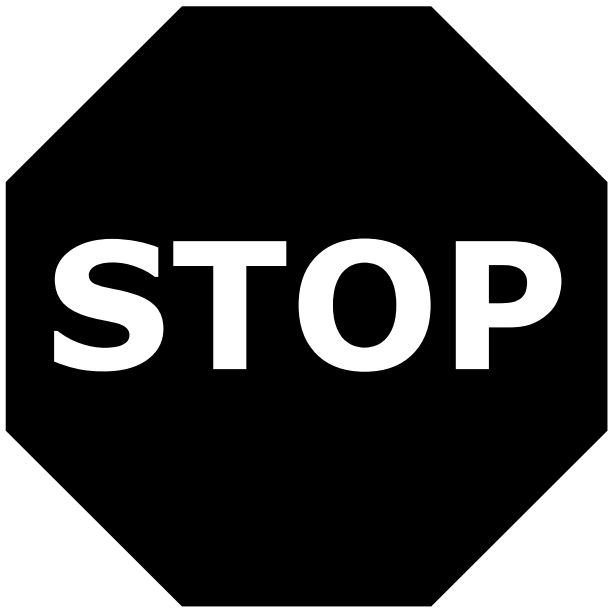

You have come to the end of the calculator section in Unit 1 of the test.

- **Review your answers in the calculator section of Unit 1 only.**
- **Then, close your test booklet and raise your hand to turn in your test materials.**

STOP

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Partnership for Assessment of
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Grade 7
Mathematics
Test Booklet

Performance Based Assessment
Practice Test