



The Pennsylvania System of School Assessment

Mathematics Item and Scoring Sampler

SUPPLEMENT

2009–2010
Grade 7

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MATHEMATICS

INTRODUCTION

The 2009–2010 Mathematics Item and Scoring Sampler Supplement displays released items from the 2009 PSSA operational test. The sampler supplement is to be used in conjunction with the previous year’s item sampler. The 2008–2009 Mathematics Item and Scoring Sampler can be found on the Pennsylvania Department of Education website at <http://www.pde.state.pa.us/>. Select the “Pre K–12 Schools” tab at the top of the page. Then select “Assessment” in the “Learn About” column to the left. Select “Resource Materials” in the “Learn About” column of the next page, and then scroll down to find the appropriate sampler. Alternately, you may type in or click this link to reach the location of the item samplers:

http://www.pde.state.pa.us/a_and_t/cwp/view.asp?a=108&Q=73314&a_and_tNav=680

This item and scoring sampler supplement contains 16 mathematics multiple-choice items and 1 open-ended item. Each item is preceded by the Assessment Anchor and Eligible Content coding. The majority of multiple-choice answer options are followed by a brief analysis or rationale. The correct answer is indicated by an asterisk. The table following each multiple-choice item displays the percentages of students who chose each answer option. The correct answer is also shaded in these tables. The table following the open-ended item indicates the students’ performance for each scorepoint. Sample student responses for each of the scoring levels are also included for the open-ended item.

MATHEMATICS

MULTIPLE-CHOICE ITEMS

Note: All percentages listed in the tables below the items have been rounded.

A.1.2.1

1. Between $\frac{1}{5}$ and $\frac{1}{4}$ of the students in a class received an A on a history test. Which decimal is between $\frac{1}{5}$ and $\frac{1}{4}$?

- A 0.17 *less than both fractions*
 B 0.23 *
 C 0.26 *thinks that $1/5 > 1/4$*
 D 0.32 *thinks that $1/5 > 1/4$*

A	B	C	D
12%	67%	13%	8%

A.2.2.4

2. A store sells bags of 12 apples for \$3.60. What is the unit cost per apple?

- A \$0.30 *
 B \$0.33 *divided 12 by 36*
 C \$3.33 *divided 12 by 3.60, the bag price*
 D \$3.60 *confused unit cost with bag price*

A	B	C	D
82%	7%	10%	2%

A.3.1.1

During an assessment, students would not be permitted to use a calculator on item 3.

3. An icicle was 48.3 centimeters (cm) long one morning, and 39.9 cm long that evening. Which is the **closest estimate** of the change in the length of the icicle from morning to evening?

A 8 cm *

B 9 cm

*dropped both decimal values: $48 - 39 = 9$;
or rounded both up: $49 - 40 = 9$*

C 10 cm

*rounded both to nearest 10:
 $50 - 40 = 10$*

D 11 cm

*dropped both decimal values and
subtracted incorrectly: $48 - 39 = 11$*

A	B	C	D
63%	19%	12%	6%

MATHEMATICS

A.3.2.1

4. Adrienne had 20 cups of flour. She used $7\frac{3}{4}$ cups of flour for a batch of bread and $3\frac{1}{3}$ cups of flour for a batch of cookies. How much flour did Adrienne have left after she baked the bread and cookies?

A $8\frac{11}{12}$ cups *

B 9 cups

$20 - (8 + 3)$, (rounded fractions)

C $11\frac{1}{12}$ cups

$7 - \frac{3}{4} + 3 - \frac{1}{3}$ (amount used)

D $15\frac{7}{12}$ cups

$20 - 7 - \frac{3}{4} + 3 - \frac{1}{3}$

A	B	C	D
59%	14%	22%	5%

B.1.1.1

Note: In the actual test, conversion charts will be provided.

5. A bucket contains 6 quarts 1 pint of paint. Ann pours 3 quarts 1 pint of additional paint into the bucket. What is the total amount of paint in the bucket?

A 2 gallons 1 quart

forgot about 2 pints

B 2 gallons 2 quarts *

C 3 gallons 1 quart

used 3 quarts per gallon

D 4 gallons 1 quart 1 pint

converted incorrectly

A	B	C	D
21%	54%	15%	10%

MATHEMATICS

B.2.2.2

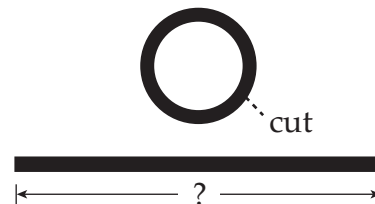
6. On a drawing of a house, the length of the living room is 3.25 inches. The scale of the drawing is 1 inch : 4 feet (ft). What is the actual length of the living room?

- A 1.23 ft *divided 4 by 3.25*
- B 7.25 ft *added 3.25 and 4*
- C 13.00 ft *
- D 14.77 ft *used 4 ft = 48 inches and divided 48 by 3.25, then rounded up*

A	B	C	D
4%	14%	77%	5%

C.1.1.1

7. Abe made a straight cut through a circular rubber band and then laid the rubber band flat, as shown below.



Which measure corresponds to the length of the cut rubber band?

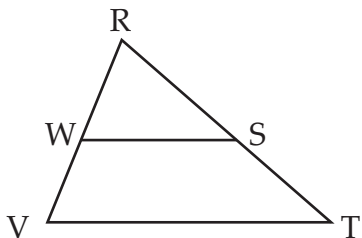
- A chord *distance from one point on the edge of a circle to another*
- B circumference *
- C diameter *distance from one point on the edge of a circle to another through the center*
- D radius *distance from the edge of a circle to the center*

A	B	C	D
14%	57%	22%	7%

MATHEMATICS

C.1.2.2

8. Triangle RSW is similar to triangle RTV as shown below.



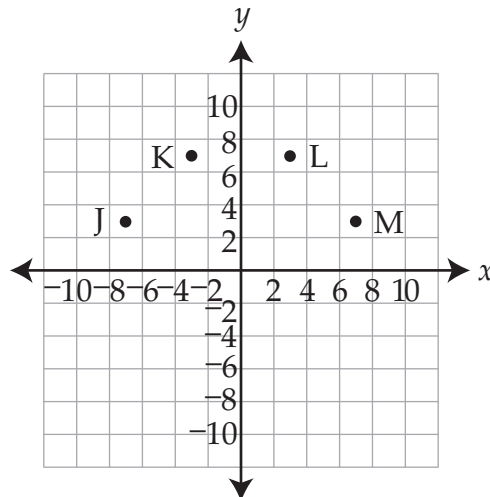
Which angle corresponds to $\angle RVT$?

- A $\angle RSW$ *corresponds to $\angle RTV$*
- B $\angle WRS$ *corresponds to $\angle VRT$*
- C $\angle RTV$ *corresponds to $\angle RSW$*
- D $\angle RWS$ *

A	B	C	D
15%	5%	14%	65%

C.3.1.1

Use the coordinate plane below to answer question 9.



9. Which point is located at $(3, 7)$?

- A point J $(-7, 3)$
- B point K $(-3, 7)$
- C point L *
- D point M $(7, 3)$

A	B	C	D
3%	2%	86%	9%

MATHEMATICS

D.1.1.1

10. The total amount of water a plant absorbed during the first five days of an experiment is shown below.

Plant Experiment

Day	Total Amount of Water Absorbed During Experiment
1	$1\frac{1}{2}$ cups
2	$2\frac{1}{4}$ cups
3	3 cups
4	$3\frac{3}{4}$ cups
5	$4\frac{1}{2}$ cups

The pattern continues. What is the total amount of water that the plant had absorbed by the end of the 6th day of the experiment?

- A $4\frac{3}{4}$ cups *added 1/4 instead of 3/4*
- B 5 cups *added 1/2 instead of 3/4*
- C $5\frac{1}{4}$ cups *
- D $5\frac{1}{2}$ cups *added 1 instead of 3/4*

A	B	C	D
8%	20%	68%	4%

D.2.1.1

11. Denisha has \$15 to buy seeds for her flower garden. The seeds cost \$1.25 per package. The equation below describes the number of seed packages (p) that Denisha will buy.

$$1.25p = 15$$

Which is the first step to find the value of p ?

- A add 1.25 to both sides
- B divide both sides by 1.25 *
- C multiply both sides by 1.25
- D subtract 1.25 from both sides

A	B	C	D
7%	67%	18%	8%

MATHEMATICS

D.2.1.2

Use the expression below to answer question 12.

$$2x^2 - xy + y$$

12. What is the value of the expression when $x = 16$ and $y = 4$?

- A 4 *in the first term incorrectly multiplied $2 \times 16 \times 2$; completed the rest correctly*
- B 452 *
- C 964 *in the first term incorrectly multiplied 2×16 then squared 32; completed the rest correctly*
- D 1,988 *squared 16 and multiplied by 2; then worked left to right, disregarding order of operations*

A	B	C	D
9%	72%	14%	5%

MATHEMATICS

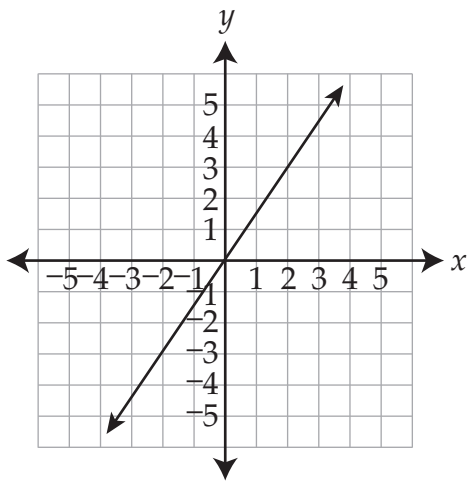
D.3.1.1

13. The table below shows the coordinates of some points on a line.

x	y
-1	-3
0	-1
2	3
3	5

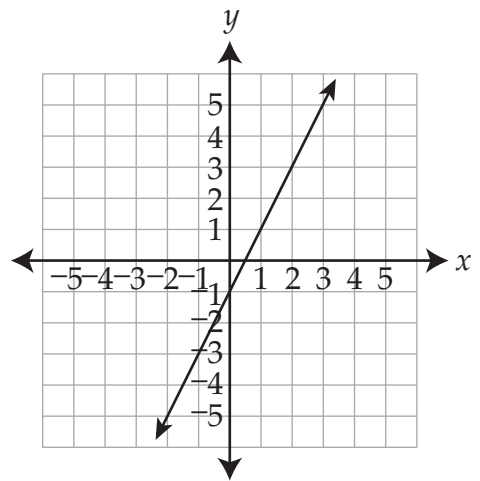
Which is a graph of the line represented by the coordinates in the table?

A



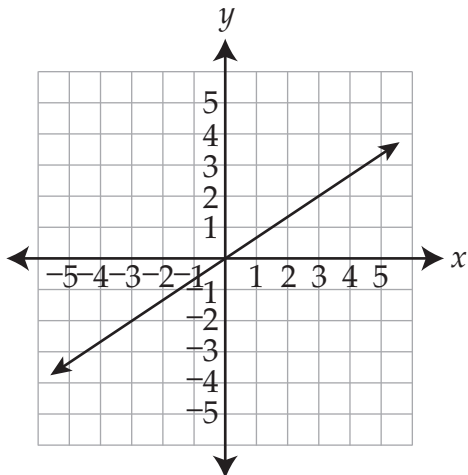
mistakenly used origin and (2, 3) only

B



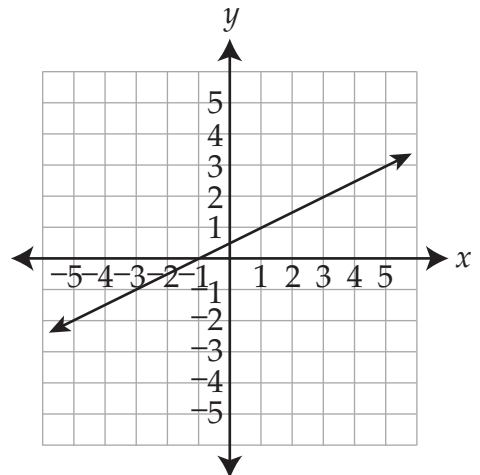
*

C



used origin and (3, 2), the reversed x and y values

D



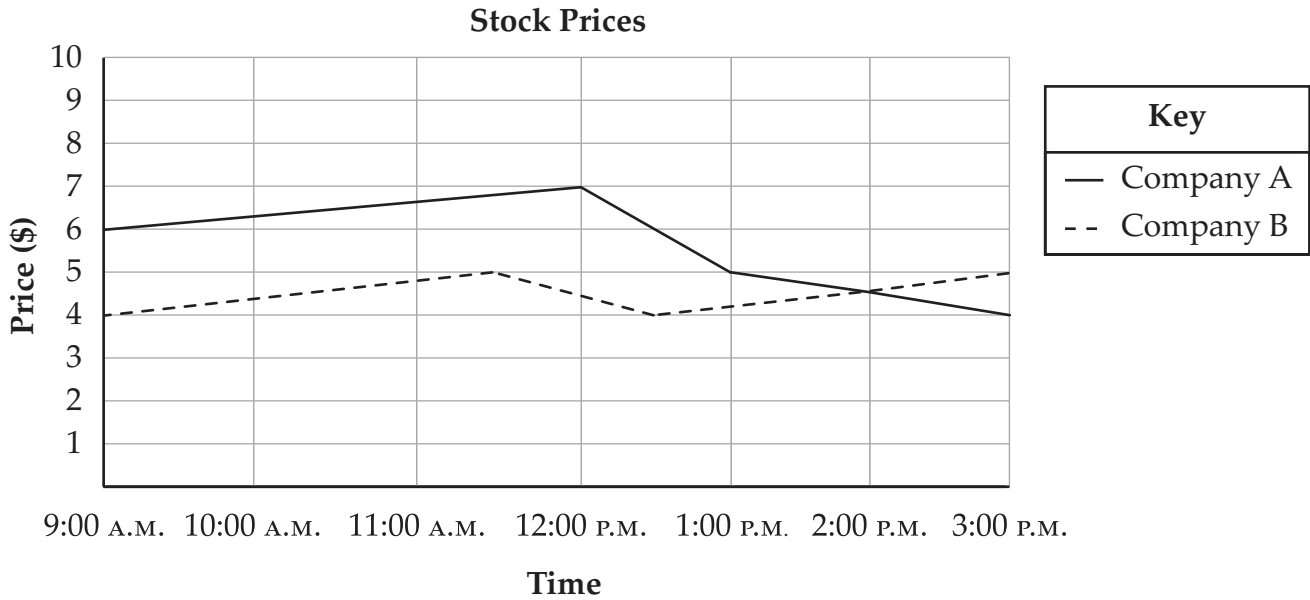
reversed x and y values

A	B	C	D
17%	55%	16%	12%

MATHEMATICS

E.1.1.1

14. The graph below shows the stock prices of 2 companies from 9:00 A.M. to 3:00 P.M. on Monday.



Based on the graph, at what time were the stock prices the same?

- A 9:00 A.M. *first time shown on the graph*
- B 12:00 P.M. *greatest difference*
- C 2:00 P.M. *
- D 3:00 P.M. *first time after graphs intersect*

A	B	C	D
6%	3%	89%	2%

MATHEMATICS

E.2.1.2

15. The prices of 10 different backpacks at a store are listed below.

\$18, \$18, \$18, \$18, \$18,
\$18, \$18, \$18, \$50, \$50

Which statistical measure provides the **best** information about the typical price of a backpack at the store?

A mean

greater than price of typical backpack

B mode

*

C maximum

greater than price of typical backpack

D range

greater than price of typical backpack

A	B	C	D
23%	64%	4%	8%

E.3.1.3

16. The table below shows the number of different types of music CDs sold at a store last month.

CD Sales

Type of Music	Number of CDs Sold
blues	120
classical	140
country	180
jazz	120
pop	360
rock	280

Based on the table, what is the **experimental** probability that one of these CDs chosen at random is a jazz CD?

A $\frac{1}{120}$

B $\frac{1}{10}$ *

C $\frac{1}{9}$

D $\frac{1}{6}$

A	B	C	D
16%	58%	6%	19%

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MATHEMATICS

OPEN-ENDED ITEM

D.3

17. Karen's cell phone company charges a per-minute fee with no other monthly fees. The table below shows the number of minutes used and the amount charged for some of Karen's phone calls last month.

Cell Phone Charges

Length of Call (minutes)	Total Cost of Call
12	\$0.48
14	\$0.56
18	\$0.72
21	\$0.84
23	\$0.92

- A. Explain how to find the cost of a 15-minute phone call.

GO TO THE NEXT PAGE TO FINISH THE QUESTION.

MATHEMATICS

17. *Continued.* Please refer to the previous page for task explanation.

B. What is the total cost of a 15-minute phone call? Show all your work.

One month, Karen's total monthly cell phone bill was \$18.56.

C. What is the total number of minutes Karen used her cell phone? Show all your work.

Score Point 4	Score Point 3	Score Point 2	Score Point 1	Score Point 0
24%	20%	19%	10%	27%

MATHEMATICS

ITEM-SPECIFIC SCORING GUIDELINE

Item #17

This item is reported under Category D, Algebraic Concepts.

Assessment Anchor:

D.3– Analyze change in various contexts.

Specific Eligible Content addressed by this item:

D.3.1.1– Solve problems involving a constant rate of change (e.g., word problems, graphs, or data tables).

Scoring Guide:

Score	In response to this item, the student—
4	demonstrates a <i>thorough</i> understanding of solving problems involving a constant rate of change by correctly solving problems and clearly explaining procedures.
3	demonstrates a <i>general</i> understanding of solving problems involving a constant rate of change by clearly explaining procedures with only minor errors or omissions.
2	demonstrates a <i>partial</i> understanding of solving problems involving a constant rate of change by correctly performing a significant portion of the required task.
1	demonstrates a <i>minimal</i> understanding of solving problems involving a constant rate of change.
0	The response has given no correct answer and <i>insufficient</i> evidence to demonstrate any understanding of the mathematical concepts and procedures as required by the task. Response may show only information copied from the question.
Non-scorable	BLK – Blank, entirely erased, or written refusal to respond OT – Off Task IL – Illegible LOE – Response in a language other than English

MATHEMATICS

Item #17

Top Scoring Response:

Part A Explanation
The company charges the same amount per minute. The per-minute charge can be found by dividing any cost by the corresponding number of minutes. Then multiply that charge by 15 minutes. OR equivalent

(1 score point)

1 point for correct and complete explanation (.5 points for correct, but incomplete, explanation)

Part B Answer	Support
\$0.60 or 60¢ or 60 cents	$\$0.48 \div 12 = \0.04 $15 \times \$0.04 = \0.60 OR equivalent

(1.5 score point)

0.5 point for correct answer
1 point for complete support

Part C Answer	Support
464 (minutes)	$18.56 \div \$0.04 = 464$ OR equivalent

(1.5 score point)

1 point for correct answer
0.5 point for complete support

NOTE: If the student has an incorrect or missing label on a final answer, the student cannot receive a score point of 4. For scores below a 4-point, there would be no penalty for a labeling error.

MATHEMATICS

OPEN-ENDED ITEM RESPONSES

D.3 Response Score: 4

17. Karen's cell phone company charges a per-minute fee with no other monthly fees. The table below shows the number of minutes used and the amount charged for some of Karen's phone calls last month.

Cell Phone Charges

Length of Call (minutes)	Total Cost of Call
12	\$0.48
14	\$0.56
18	\$0.72
21	\$0.84
23	\$0.92

- A. Explain how to find the cost of a 15-minute phone call.

The first thing you need to do is divide the cost for 12 minutes by 12, so you can find the cost for one minute. After, you've done that you multiply your answer by 15 minutes to (find the cost for a 15-minute cellphone call.)

The student has given a correct and complete explanation.

GO TO THE NEXT PAGE TO FINISH THE QUESTION.

MATHEMATICS

17. *Continued.* Please refer to the previous page for task explanation.

B. What is the total cost of a 15-minute phone call? Show all your work.

WORK

$\begin{array}{r} \textcircled{1} \$0.48 \\ \div 0.12 \\ \hline 0.04 \end{array}$	$\begin{array}{r} \textcircled{2} 12 \text{ min.} \\ \hline 48 \text{¢} \\ \hline 12 \text{ min} = 1 \text{ min} \\ \hline 48 \text{¢} = 4 \text{¢} \end{array}$
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$$\frac{1 \text{ min} \times 15}{4 \text{¢} \times 15} = \frac{15 \text{ min}}{60 \text{¢}}$$

answer: \$0.60

The student has given a correct answer.
The student has shown complete support.

One month, Karen's total monthly cell phone bill was \$18.56.

C. What is the total number of minutes Karen used her cell phone? Show all your work.

answer
464 min.

WORK

$$\begin{array}{r} \$18.56 \\ \div \$0.04 \\ \hline 464 \text{ minutes} \end{array}$$

1 min = 4¢

The student has given a correct answer.
The student has shown complete support.

MATHEMATICS

D.3 Response Score: 3

17. Karen's cell phone company charges a per-minute fee with no other monthly fees. The table below shows the number of minutes used and the amount charged for some of Karen's phone calls last month.

Cell Phone Charges

Length of Call (minutes)	Total Cost of Call
12	\$0.48
14	\$0.56
18	\$0.72
21	\$0.84
23	\$0.92

- A. Explain how to find the cost of a 15-minute phone call.

To find the cost of a 15-minute phone call, you first must find the difference of cost between a 18-minute call and a 14-minute call. The difference in cost is 16¢. Next you find the minutes between a 18 and 14 minute call. Which is four minutes. Next you divide the difference in cost between a 18 and 14 minute call, by the minutes in between a 18 and 14 minute call. You come up with 4¢. Finally, you add the cost of a 14-minute call and 4¢. Your answer is 60¢. That is how much a 15 minute call costs.

The student has given a correct and complete explanation.

GO TO THE NEXT PAGE TO FINISH THE QUESTION.

MATHEMATICS

17. *Continued.* Please refer to the previous page for task explanation.

B. What is the total cost of a 15-minute phone call? Show all your work.

The total cost of a 15-minute phone call
is 60¢

$$1) 72¢ - 56¢ = 16¢$$

$$2) 18 - 14 = 4$$

$$3) 16¢ \div 4 = 4¢$$

$$4) 56¢ + 4¢ = 60¢$$

60¢

The student has given a correct answer.
The student has shown complete support.

One month, Karen's total monthly cell phone bill was \$18.56.

C. What is the total number of minutes Karen used her cell phone? Show all your work.

Karen used her cell phone for a
total of 46.4 minutes

$$1) \$18.56 \div 4¢ = 46.4$$

46.4

The student has given an incorrect answer.
The student has shown complete support.

MATHEMATICS

D.3 Response Score: 3

17. Karen's cell phone company charges a per-minute fee with no other monthly fees. The table below shows the number of minutes used and the amount charged for some of Karen's phone calls last month.

Cell Phone Charges

Length of Call (minutes)	Total Cost of Call
12	\$0.48
14	\$0.56
18	\$0.72
21	\$0.84
23	\$0.92

- A. Explain how to find the cost of a 15-minute phone call.

You must take 15 and multiply it to the price per each minute you talk. To get the price per minute you take a number of minutes all ready given in the graph and you divide the total cost by the total number of minutes for that call.

The student has given a correct and complete explanation.

GO TO THE NEXT PAGE TO FINISH THE QUESTION.

MATHEMATICS

17. *Continued.* Please refer to the previous page for task explanation.

B. What is the total cost of a 15-minute phone call? Show all your work.

$$.48 \div 12 = 0.04$$
$$\begin{array}{r} 0.04 \\ \times 15 \\ \hline 020 \\ 0040 \\ \hline 00.60 \end{array}$$

0.60¢
for 15
minutes

The student has given a correct answer with a labeling error. The student has shown complete support.

One month, Karen's total monthly cell phone bill was \$18.56.

C. What is the total number of minutes Karen used her cell phone? Show all your work.

$$18.56 \div 0.04 = 464$$

She paid \$18.56 for 464 minutes that month.

To check:

$$\begin{array}{r} 464 \\ \times 0.04 \\ \hline 18.56 \end{array}$$

\$18.56

The student has given a correct answer. The student has shown complete support.

MATHEMATICS

D.3 Response Score: 2

17. Karen's cell phone company charges a per-minute fee with no other monthly fees. The table below shows the number of minutes used and the amount charged for some of Karen's phone calls last month.

Cell Phone Charges

Length of Call (minutes)	Total Cost of Call
12	\$0.48
14	\$0.56
18	\$0.72
21	\$0.84
23	\$0.92

- A. Explain how to find the cost of a 15-minute phone call.

Handwritten work showing two calculations:

1. Division: $12 \overline{)48}$ with a remainder of 0. Above the 48 is written "4¢ per minute".

2. Multiplication: $\begin{array}{r} 2 \\ 15 \\ \times 4 \\ \hline 60 \end{array}$ with a dollar sign and cent symbol next to the 60.

The student has shown correct work but provided no explanation. The response earns $\frac{1}{2}$ a point.

GO TO THE NEXT PAGE TO FINISH THE QUESTION.

MATHEMATICS

17. *Continued.* Please refer to the previous page for task explanation.

B. What is the total cost of a 15-minute phone call? Show all your work.

$$48 \div 12 = 4\text{¢ per minute}$$

$$15 \times 4 = 60\text{¢}$$

$$\text{\$ } 0.60$$

The student has given a correct answer.
The student has shown complete support.

One month, Karen's total monthly cell phone bill was \$18.56.

C. What is the total number of minutes Karen used her cell phone? Show all your work.

$$\begin{array}{r} 4\overline{)18.56} \rightarrow 464 \\ \underline{16} \\ 25 \\ \underline{24} \\ 16 \\ \underline{16} \\ 0 \end{array}$$

4 hours and 64 minutes

4:64

The student has given an incorrect answer.
The student has shown complete support.
Based on PSSA scoring rules, 2½ points count as 2 points.

MATHEMATICS

D.3 Response Score: 2

17. Karen's cell phone company charges a per-minute fee with no other monthly fees. The table below shows the number of minutes used and the amount charged for some of Karen's phone calls last month.

Cell Phone Charges

Length of Call (minutes)	Total Cost of Call
12	\$0.48
14	\$0.56
18	\$0.72
21	\$0.84
23	\$0.92

- A. Explain how to find the cost of a 15-minute phone call.

The way I got the answer was that first I divided 12 to 48 and got 4. Next I divided 56 to 14 and I got 4. So after that I multiplied 15 to 4. That is how I got the answer for this problem.

The student has given a correct and complete explanation.

GO TO THE NEXT PAGE TO FINISH THE QUESTION.

MATHEMATICS

17. *Continued.* Please refer to the previous page for task explanation.

B. What is the total cost of a 15-minute phone call? Show all your work.

$48 \div 12 = 4$ $56 \div 14 = 4$ $72 \div 18 = 4$ $84 \div 21 = 4$ $92 \div 23 = 4$	<p>The way I got the answer was that I suspected that since I divided all the problems and got 4, I multiplied 15 to 4. The answer I got was .60\$.</p>
--	---

25	
x 4	
60	

The student has given a correct answer.
The student has shown complete support.

One month, Karen's total monthly cell phone bill was \$18.56.

C. What is the total number of minutes Karen used her cell phone? Show all your work.

$\begin{array}{r} 12 \\ 14 \\ 18 \\ 21 \\ 23 \\ \hline 88m \end{array}$	$\begin{array}{r} 12 \\ +14 \\ \hline 26 \\ +18 \\ \hline 44 \\ +21 \\ \hline 65 \\ +23 \\ \hline 88 \end{array}$	<p>88 minutes What I did to get this answer was that I added all the numbers together. I got 88 minutes. What I also did was at first I added 12 to 14 and got 26. Next, I added 26 to 18 and got 44. Then, I added 44 to 21 and I got 65. Finally, I added 65 to 23 and got 88.</p>
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The student has given an incorrect answer.
The student has shown incorrect support.
Based on PSSA scoring rules, 2½ points count as 2 points.

MATHEMATICS

D.3 Response Score: 1

17. Karen's cell phone company charges a per-minute fee with no other monthly fees. The table below shows the number of minutes used and the amount charged for some of Karen's phone calls last month.

Cell Phone Charges

Length of Call (minutes)	Total Cost of Call
12	\$0.48
14	\$0.56
18	\$0.72
21	\$0.84
23	\$0.92

- A. Explain how to find the cost of a 15-minute phone call.

Well what you do is find out how much they are charging you for each call.

The student has given an incorrect and incomplete explanation.

GO TO THE NEXT PAGE TO FINISH THE QUESTION.

MATHEMATICS

17. *Continued.* Please refer to the previous page for task explanation.

B. What is the total cost of a 15-minute phone call? Show all your work.

$$\begin{array}{r} 15 \\ \times 4 \\ \hline 60 \end{array}$$

$$\begin{array}{l} 12 - 48 = 36 \\ 14 - 56 = 42 \\ 18 - 72 = 56 \\ 21 - 84 = 63 \\ 23 - 92 = 69 \end{array}$$

The student has given a correct answer.
The student has shown incomplete support.

One month, Karen's total monthly cell phone bill was \$18.56.

C. What is the total number of minutes Karen used her cell phone? Show all your work.

used in \rightarrow PREVIOUS problems

$$6 \overline{) 18.56}$$

309
mins talked
that month

The student has given an incorrect answer.
The student has shown incorrect support.

MATHEMATICS

D.3 Response Score: 1

17. Karen's cell phone company charges a per-minute fee with no other monthly fees. The table below shows the number of minutes used and the amount charged for some of Karen's phone calls last month.

Cell Phone Charges

Length of Call (minutes)	Total Cost of Call
12	\$0.48
14	\$0.56
18	\$0.72
21	\$0.84
23	\$0.92

- A. Explain how to find the cost of a 15-minute phone call.

The cost of 15 min would be about \$0.60
cause 14 is \$0.56 so I estimated

The student has given an incorrect explanation.

GO TO THE NEXT PAGE TO FINISH THE QUESTION.

MATHEMATICS

17. *Continued.* Please refer to the previous page for task explanation.

B. What is the total cost of a 15-minute phone call? Show all your work.

a 15 min phone call is \$1.00
cause you would estimate from \$5.00

The student has given a correct answer with a labeling error. The student has shown no support.

One month, Karen's total monthly cell phone bill was \$18.56.

C. What is the total number of minutes Karen used her cell phone? Show all your work.

about 2138 min cause I added \$92
and got close to \$18.56 then add how
many minutes and got 138

The student has given an incorrect answer. The student has shown incorrect support.

MATHEMATICS

D.3 Response Score: 0

17. Karen's cell phone company charges a per-minute fee with no other monthly fees. The table below shows the number of minutes used and the amount charged for some of Karen's phone calls last month.

Cell Phone Charges

Length of Call (minutes)	Total Cost of Call
12	\$0.48
14	\$0.56
18	\$0.72
21	\$0.84
23	\$0.92

- A. Explain how to find the cost of a 15-minute phone call.

every minute is \$0.8 per minute so
If you was to call someone and
talk for fifteen minutes it would
cost \$0.164

The student has given an incorrect explanation.

GO TO THE NEXT PAGE TO FINISH THE QUESTION.

MATHEMATICS

17. *Continued.* Please refer to the previous page for task explanation.

B. What is the total cost of a 15-minute phone call? Show all your work.

$$\begin{array}{r} 48 \\ + 8 \\ \hline 56 \\ + 8 \\ \hline 64 \end{array}$$

first I added 48 by 8 and got 56 now I know I am counting by 8 so then I added 8 by 56 and got 64 15 minute phone call is \$0.69

The student has given an incorrect answer.
The student has shown incorrect support.

One month, Karen's total monthly cell phone bill was \$18.56.

C. What is the total number of minutes Karen used her cell phone? Show all your work.

first I multiply 8 by 240 minutes and got 18.90 that is close to 18.56 The total was 4 hours. She was talking for 4 hours.

$$\begin{array}{r} 18.56 \\ \times 8 \\ \hline 18.90 \end{array}$$

The student has given an incorrect answer.
The student has shown incorrect support.

MATHEMATICS

SUMMATIVE DATA TABLE

Multiple-Choice Items

Sampler Sequence	A	B	C	D
1	12%	67%	13%	8%
2	82%	7%	10%	2%
3	63%	19%	12%	6%
4	59%	14%	22%	5%
5	21%	54%	15%	10%
6	4%	14%	77%	5%
7	14%	57%	22%	7%
8	15%	5%	14%	65%
9	3%	2%	86%	9%
10	8%	20%	68%	4%
11	7%	67%	18%	8%
12	9%	72%	14%	5%
13	17%	55%	16%	12%
14	6%	3%	89%	2%
15	23%	64%	4%	8%
16	16%	58%	6%	19%

Open-Ended Item

Sampler Sequence	Score Point 4	Score Point 3	Score Point 2	Score Point 1	Score Point 0
17	24%	20%	19%	10%	27%

Mathematics
Grade 7
Item and Scoring Sampler Supplement

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