WASL—Washington Assessment of Student Learning

A Component of the Washington State Assessment Program

Using Results to Improve Student Learning

Mathematics Grade 10

2001 Released Items

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October 10, 2001

Dear Washington State Educators:

It is with great pleasure that the Office of the Superintendent of Public Instruction (OSPI) offers this new publication containing released test items from the 2001 Washington Assessment of Student Learning (WASL). This publication is designed to assist teachers and administrators in the analysis of the results of specific test items in order to identify patterns, trends, weaknesses and strengths of student performance on the Essential Academic Learning Requirements (EALRs).

In this packet, you will find actual test items that were used on the Spring 2001 WASL test in reading and mathematics. The writing prompts are not included because you will be receiving the 2001 writing prompts along with annotated student work.

As a teacher, or as a district or building administrator, you will be able to analyze the actual test items and the data that accompanies them to learn more about students in your school and district. You will be able to compare the performance of your school to your district or the state. By analyzing the differences in the data and the relationship that each question has with the EALRs, you will be able to identify where performance is strong and weak in your school and district. We encourage you to provide opportunities for students, teachers, and parents to work with the item-specific scoring guides in reading and mathematics and the annotated student responses that illustrate each score point.

OSPI hopes that you will use the information to begin a thoughtful, impassioned dialogue about what we expect our students to know and be able to do and how well they need to do it. We expect that this material will initiate conversations among administrators, faculty, students, and parents to how this information can impact our teaching, our learning, and our communication. Plans to improve student learning should not be made based on these results alone. It is important to also include the results from other assessments used by the teacher, school, and/or district.

In October, OSPI will conduct regional training on the effective use of these materials.

Congratulations on our work to improve student learning in Washington. Let's continue our fine work as we move forward toward our goal of increasing all student achievement and to create thoughtful, competent citizens for the 21st Century. I encourage you to search our website for further resources (www.k12.wa.us).

Sincerely,

Terry Bergeson

Dr. Terry Bergeson
State Superintendent of
Public Instruction

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How to Use this Released Item Booklet and the Item Analysis Report

Introduction:
You should have two documents: one, this Released Item Booklet and two, the Item Analysis Report. These two documents should be used together to help administrators and teachers understand released WASL items that reflect content-specific learning strands and targets which are derived Essential Academic Learning Requirements.

This **Released Item Booklet** includes the following information:

- WASL passages (for reading) and items from the 2001 Operational Test
- A table for each item where you can transfer the school-level, district-level, and state-level data information
- Information to indicate the learning target and strand information for each item
- Item-specific scoring guides, student work at representative score points, and annotated explanations for scores

The **Item Analysis Report** includes the following information:

- A list of all released items referenced to learning strands and learning targets
- Multiple choice items include the percent of students who responded to each possible answer. Correct answers have asterisks. Information is presented by the percent of students responding to each possible answer by school, by district, and by state.
- For constructed-response items, including short answers and extended response, information is presented by the percent of students who scored at each score point by school, by district, and by state.

How to Understand Your Data:

- First, transfer your data from the Item Analysis Report to the Released Item Booklet. Transfer all the information for each item into each table. By transferring the data, you will have all the information in one place.
- Second, examine the item types that represent the school's or the district's strengths or weaknesses. Does the school or district perform well on multiple choice items? Constructed-response items? What percent of students in a school or a district left constructed-response items blank or earned a zero?
- Third, examine the learning strands and targets represented by each item. Group together targets that represent strengths or weaknesses for a school or a district. Do the targets all fit underneath one particular strand or do they belong to several strands?
- Fourth, look for trends. Does a school perform markedly lower on a particular item in comparison to the district or the state? Does a school or a district perform markedly higher on a particular item in comparison to the state?

Introduction to Mathematics Released Items

Welcome to the Released Item Booklet for the WASL 2001 mathematics items. In this booklet you will find between 12–16 items that were part of the spring 2001 WASL test for mathematics.

There are four types of test items:

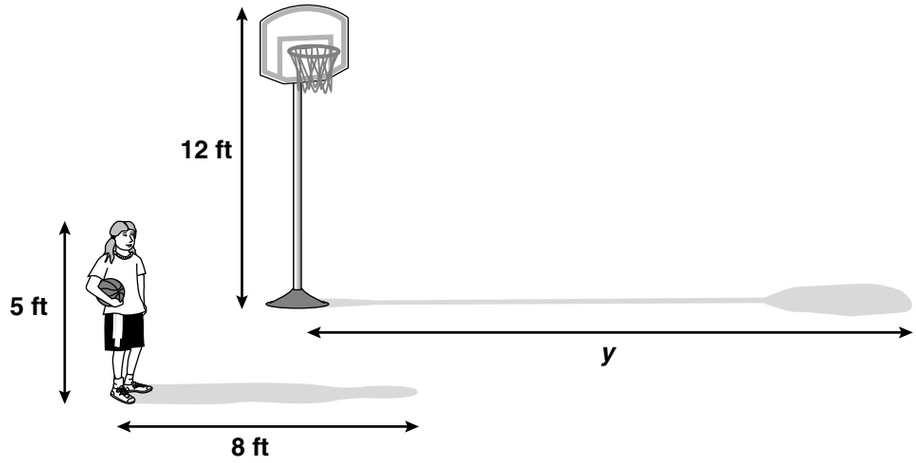
- multiple choice items where students earn one point by selecting the right answer from a few options;
- extended multiple choice items where students can earn up to two points by first selecting the right answer from options and then explaining something about their choice
- short answer items where students earn up to two points by writing an answer, explaining their thinking, drawing a picture or diagram, or showing steps used to solve a problem
- extended response items where students can earn up to four points by constructing a response that asks for more details (graphs, tables, written summaries) or more thinking.

Please note that in releasing 12–16 items from the 2001 WASL test for mathematics, OSPI is releasing approximately 36% of the mathematics WASL. The items that were not released this year will be used on future WASLs. However, these released items also provide invaluable opportunities for teachers and administrators to become familiar with the types of mathematics items derived from the mathematics EALRs while also becoming experienced with the item-specific scoring guides and annotated samples of student responses.

You may want to become familiar with the WASL test and item specifications (located on our website—www.k12.wa.us) as you study the items, your school or district's data, and the annotated student responses contained in this Released Item Booklet. Each item in this booklet represents a "learning target" which is a mathematics skill derived from the EALRs that can be captured in a paper and pencil assessment. These targets are subsets of the nine content and process mathematics strands.

As you begin to analyze your data, think about what would account for the performance of students on particular items. Although many of the items can represent strength and weaknesses across schools, districts, and the state, attempt to maintain the whole picture in your analysis. Staff at OSPI recommends that you examine the items themselves closely and ask yourselves, "What do we expect our students to know and be able to do in order to be successful on this item?" Along with classroom performance information, results from other tests, and these test items informed curriculum decisions can be made.

In order to assist you in your efforts in understanding and using the Released Item Test Booklet, please do not hesitate to search our website for further resources or call our offices in Olympia for further information.



1 A 5-foot-tall person casts an 8-foot shadow. If a vertical pole that supports a basketball hoop is 12 feet high, how long is its shadow?

- ○ **A.** 7.5 feet
- ○ **B.** 15 feet
- ○ **C.** 19.2 feet
- ○ **D.** 25 feet

Item Information:

Correct Answer: C

Strand: Number Sense

Learning Target: Demonstrate an understanding of the concepts of ratio and direct and inverse proportion

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Responses (* = correct response)
			A
			B
			C*
			D
			NR

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2 Manuel stopped at the grocery store on his way home from school. He bought a loaf of bread for $1.89, a gallon of milk for $2.19, and a bag of pretzels for $1.09. Manuel also noticed that his favorite apples were on sale for $0.79 per pound. If each apple weighed about 10 ounces and Manuel's total bill was approximately $10 altogether, how many apples did he buy? (16 ounces = 1 pound)

○ **A.** 3

○ **B.** 6

○ **C.** 10

○ **D.** 12

Item Information:

Correct Answer: C

Strand: Measurement

Learning Target: Measure objects and events directly and use indirect methods; calculate rate and other derived and indirect measurements.

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Responses (* = correct response)
			A
			B
			C*
			D
			NR

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3 If the height of a cylindrical storage tank is 11 m and the radius is 10 m, what would be its volume? ($\pi \approx 3.14$)

- ○ **A.** 314 m^3
- ○ **B.** 691 m^3
- ○ **C.** 1,100 m^3
- ○ **D.** 3,454 m^3

Item Information:

Correct Answer: D

Strand: Measurement

Learning Target: Measure objects and events directly and use indirect methods; calculate rate and other derived and indirect measurements.

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Responses (* = correct response)
			A
			B
			C
			D*
			NR

4 In parallelogram *PQRS,* the measures of angle P and angle R are each 146°. What is the measure of angle Q?

○ **A.** 146°

○ **B.** 112°

○ **C.** 68°

○ **D.** 34°

Item Information:

Correct Answer: D

Strand: Geometric Sense

Learning Target: Use geometric properties and relationships to compare, contrast, describe, and classify 2- and 3-dimensional geometric figures, draw geometric models and scale drawings using tools as appropriate

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Responses (* = correct response)
			A
			B
			C
			D*
			NR

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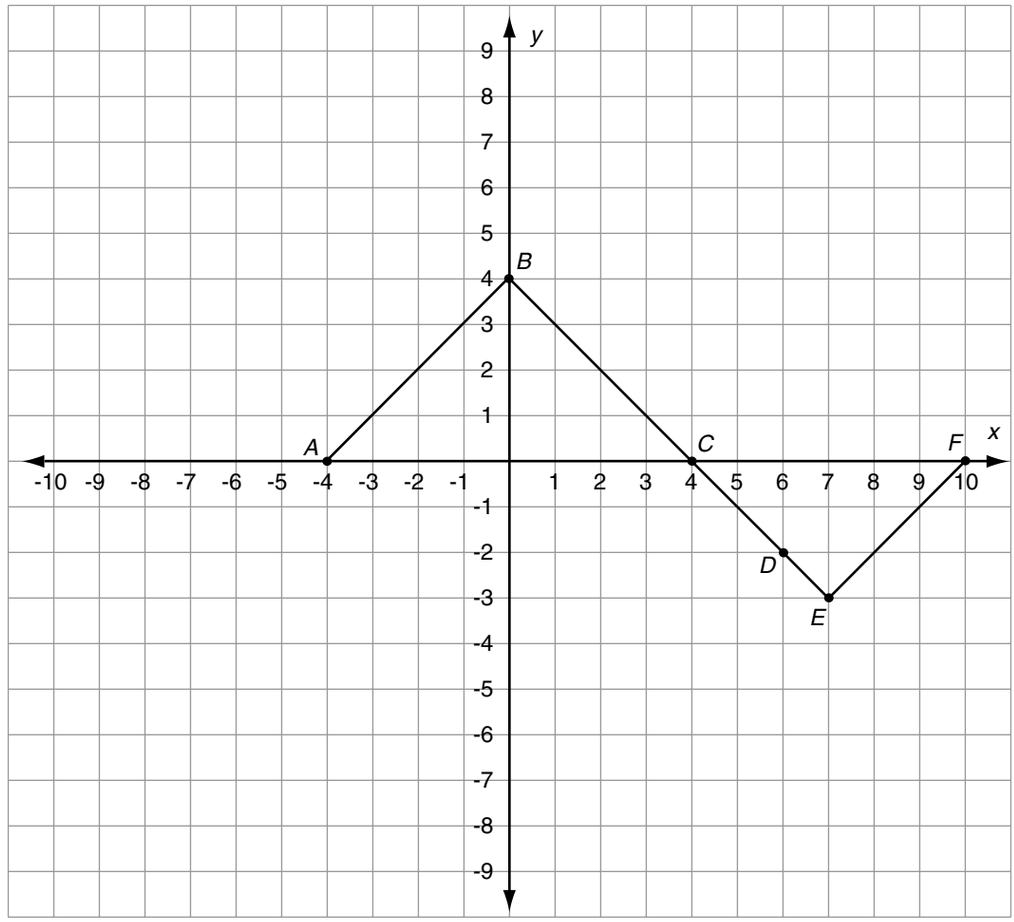
5 If the figure below were reflected over the y-axis, what would be the new coordinates of point *D*?



○ **A.** (6, 2)

○ **B.** (-6, -2)

○ **C.** (2, 6)

○ **D.** (-2, -6)

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5 (continued)

Item Information:

Correct Answer: B

Strand: Geometric Sense

Learning Target: Demonstrate an understanding of and apply multiple geometric transformations using combinations of translations, reflections, and/or rotations

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Responses (* = correct response)
			A
			B*
			C
			D
			NR

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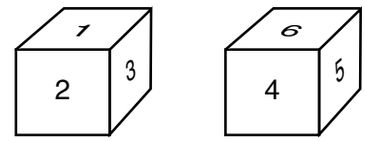
6 Akio and Tamera are playing a game with two number cubes, each labeled 1–6. On each turn, the person rolls both number cubes. The sum of the two numbers on top of the number cubes tells how many spaces that person can move the game piece.



Akio needs to move nine spaces to win the game. What is the probability that Akio will roll a sum of **at least** nine on his next turn?

○ **A.** $\frac{1}{10}$

○ **B.** $\frac{1}{4}$

○ **C.** $\frac{5}{18}$

○ **D.** $\frac{4}{11}$

Item Information:

Correct Answer: C

Strand: Probability and Statistics

Learning Target: Demonstrate an understanding of the properties of dependent and independent events; understand and use appropriate counting procedures to determine probabilities; use both experimental and theoretical methods to determine probabilites

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Responses (* = correct response)
			A
			B
			C*
			D
			NR

7 The parents' library committee printed 350 books of 24 raffle tickets. After all the tickets are sold, they plan to draw 30 winning tickets. Phil bought 5 tickets. Which of these is closest to the probability that he will win?

- ○ **A.** $\frac{1}{6}$
- ○ **B.** $\frac{1}{56}$
- ○ **C.** $\frac{1}{70}$
- ○ **D.** $\frac{1}{280}$

Item Information:

Correct Answer: B

Strand: Probability and Statistics

Learning Target: Demonstrate an understanding of the properties of dependent and independent events; understand and use appropriate counting procedures to determine probabilities; use both experimental and theoretical methods to determine probabilities

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Responses (* = correct response)
			A
			B*
			C
			D
			NR

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8 Find the rule for the table below.

x	*y*
2	10
4	22
6	34
10	58

○ **A.** $y = 4x + 2$

○ **B.** $y = 6x - 2$

○ **C.** $y = 7x - 4$

○ **D.** $y = 5x + 4$

Item Information:

Correct Answer: B

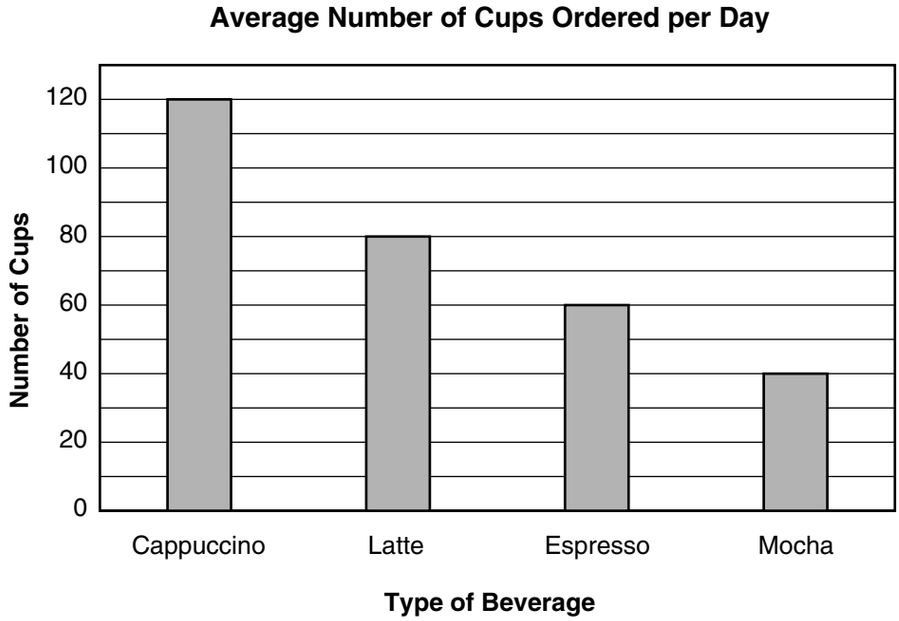
Strand: Algebraic Sense

Learning Target: Translate among tabular, symbolic, and graphical representations of relations, represents situations that involve variable quantities with expressions, formulas, equations, and inequalities

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Responses (* = correct response)
			A
			B*
			C
			D
			NR

9 Suki needs to translate the following bar graph into a circle graph.



What should be the measure of the angle of the section for espresso?

○ **A.** 20 degrees

○ **B.** 60 degrees

○ **C.** 72 degrees

○ **D.** 90 degrees

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9 (continued)

Item Information:

Correct Answer: C

Strand: Makes Connections

Learning Target: Relate and use conceptual and procedural understandings among a variety of mathematical content strands; relate and use equivalent mathematical models and representations

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Responses (* = correct response)
			A
			B
			C*
			D
			NR

Mathematics

10 Study the pattern shown in the following table.

What would be the value of *s* when *r* equals 10?

r	0	2	4	6	8	
s	7	11	23	43	71	

Show your work.

What is the value of *s* when *r* equals 10? _____

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10 (continued)

Item Information:

Score points: 2 (see pages 22–25 for examples of each score point)

Strand: Algebraic Sense

Learning Target: Recognize, create, and extend complex patterns and sequences; generalize and express rules for patterns

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Points
			0
			1
			2
			NR
			Mean

Mathematics

11 The average (mean) weight of three members of a bobsled team is 161 lb. When the weight of the driver (the fourth member) is added, the average weight of the team becomes 165.5 lb.

You want to find out how much the driver weighs.

Is enough information given to find the driver's weight? If so, find the weight. If not, identify the missing information.

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11 (continued)

Item Information:

Score points: 2 (see pages 26–29 for examples of each score point)

Strand: Solves Problems and Reasons Logically

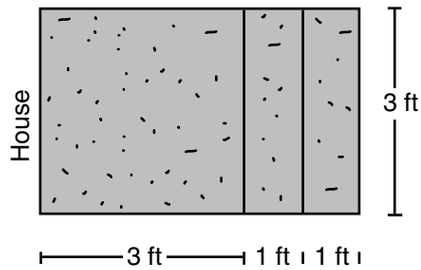
Learning Target: Define problems by identifying the question(s) to be answered (that which is unknown and to be made known through problem solution) and by identifying the known information, missing information, and/or extraneous information

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

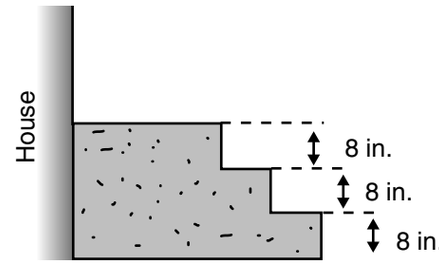
Percent Distribution			
School	District	State	Points
			0
			1
			2
			NR
			Mean

Mathematics

12 Homeowners want to replace some old wooden steps with concrete steps. They make the following drawings and bring them to your construction company. They want an estimate of the total cost.

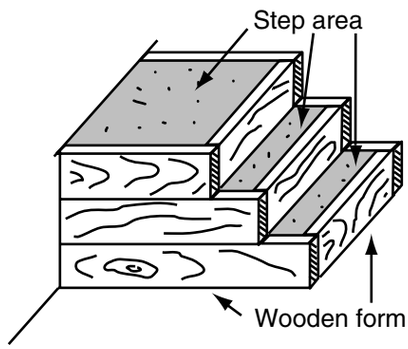


Top View



Side View

You explain that a wooden form is built for each step, and concrete is then poured into the form. Concrete is delivered in cubic yards. The bottom step is completed first, then the middle, and then the top. You show them the drawing and the price list below.



Delivered ready-mixed concrete . . . . . .$40/cu yd

8 in. wide wooden forms with 1 in. thick boards. . .$1.50/ft

Surfacing the concrete. . .$0.50/sq ft (putting smooth surface on step areas)

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12 (continued)

The homeowners ask you to figure out the total cost and explain it to them. Create an organized job list for the cost part of the estimate.

Make sure your estimate is supported by calculations of cost based on all materials used.

Total cost = _____

Please note: In student test booklets, answer space for 4-point items fills the entire second page.

Item Information:

Score points: 4 (see pages 30–34 for examples of each score point)

Strand: Communicates Understanding

Learning Target: Clearly organize, represent, and express mathematical information, understandings, and ideas in ways appropriate for the given audience and purpose

Performance Data (Use this space to fill in student performance information for your school, district, and the state.):

Percent Distribution			
School	District	State	Points
			0
			1
			2
			3
			4
			NR
			Mean

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Scoring Guides

Scoring Guide for question number 10:

A **2-point** response shows clear understanding of how to determine and extend the pattern. The student clearly indicates that the value of s would equal 107 and provides a reasonable explanation and/or supporting work to justify this answer.

For example, the student may

- Show or explain that $s = r^2 + 7$.
- Show or explain that for each increase of 2 in the value of r, the value of s increases by the next odd multiple of 4.

A **1-point** response shows some understanding of how to determine and extend the pattern.

For example, the student may do **one** of the following:

- Indicate that the value of s would equal 107, but does not provide a valid explanation to support the answer
- Indicate clear understanding of the pattern (e.g., sets up the equation $s = r^2 + 7$), but make a computation or substitution error, so that the value obtained for $s \neq 107$.

A **0-point** response shows little or no mathematical understanding of the problem.

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Annotated Example of a 2-point response for question number 10:

10 Study the pattern shown in the following table.

What would be the value of *s* when *r* equals 10? Show your work

r	0	2	4	6	8	10
s	7	11	23	43	71	107
		4	12	20	25	36

$7 + x = 11$ $11 + x = 23$ $23 + x = 43$ $43 + x = 71$

$x = 4$ $x = 12$ $x = 20$ $x = 28$

$71 + 36 = 107$

$4 + 8 = 12$

$12 + 8 = 20$

$20 + 8 = 28$

$28 + 8 = 36$

What is the value of *s* when *r* equals 10? 107

Annotations:
The response shows clear understanding of how to determine and extend the pattern. Clearly indicates the value of s equals 107 and provides supporting work to justify the answer. The response earns two points.

Mathematics

Annotated Example of a 1-point response for question number 10:

10 Study the pattern shown in the following table.

What would be the value of *s* when *r* equals 10? Show your work

r	0	2	4	6	8	9	10
s	7	11	23	43	71	107	151

+2 +2 +2 +2 +2 +2

+4 +12 +20 +28 +36 +44

+8 +8 +8 +8 +8

Show your work.

All work is on the table

What is the value of *s* when *r* equals 10? 151

Annotations:
The response shows some understanding of how to determine and extend the pattern. It gives supporting work that has a computation error that extends the pattern to 151. The response earns one point.

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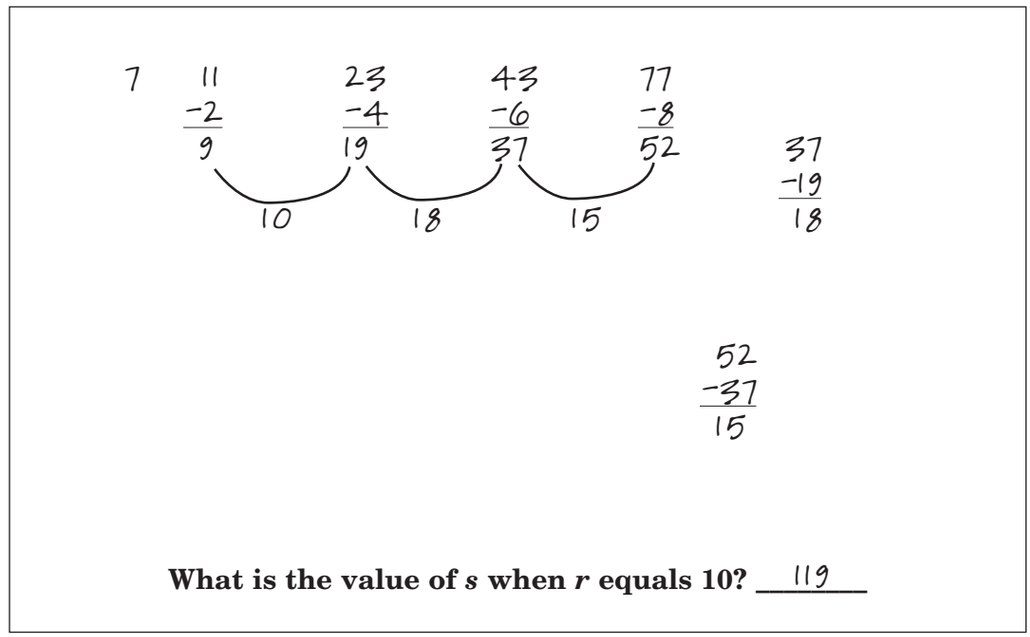
Annotated Example of a 0-point response for question number 10:

10 Study the pattern shown in the following table.

What would be the value of *s* when *r* equals 10? Show your work

r	0	2	4	6	8	10
s	7	11	23	43	71	119



Annotations:
The response shows little understanding by indicating that s = 119. The supporting work is inappropriate. The response earns no points.

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Scoring Guide for question number 11:

A 2**-point** response indicates enough information is given and states the driver's weight as 179 lbs.

A **1-point** response does **one** of the following:

- States "yes" but incorrectly computes the weight.
- States that the driver must weigh more than 165.5 lbs.

A **0-point** response shows little or no mathematical understanding of the problem. This includes stating "yes," with no work or weight given.

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Annotated Example of a 2-point response for question number 11:

11 The average (mean) weight of three members of a bobsled team is 161 lb. When the weight of the driver (the fourth member) is added, the average weight of the team becomes 165.5 lb.

You want to find out how much the driver weighs.

Is enough information given to find the driver's weight? If so, find the weight. If not, identify the missing information.

161 x 3 483	165.5 x 4 6620 483 179
Yes, there is enough information. The driver's weight is 179 lbs. This was found by multiplying 161 by 3 and 165.5 by 4 to get the total weights. The difference of the two totals is the weight of the driver, 179 lbs.	

Annotations:
The response shows effective reasoning by stating "yes", showing computations with an explanation and giving an answer of 179 lbs. The response earns two points.

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Annotated Example of a 1-point response for question number 11:

11 The average (mean) weight of three members of a bobsled team is 161 lb. When the weight of the driver (the fourth member) is added, the average weight of the team becomes 165.5 lb.

You want to find out how much the driver weighs.

Is enough information given to find the driver's weight? If so, find the weight. If not, identify the missing information.

$(161+X) \div 2 = 165.5$

$2\left[(161+X) \div 2 = 165.5\right]$

$165.5 \times 2 = 331.0$

$161+X = 331$

$X = 331-161$

$X = 170$

$331 - 161 = 170$

The driver wieghs 170 pounds.

Annotations:
The response shows somewhat flawed reasoning by stating a weight of 170 lbs. and showing inappropriate computations using only two bobsledders. The response earns one point.

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Annotated Example of a 0-point response for question number 11:

11 The average (mean) weight of three members of a bobsled team is 161 lb. When the weight of the driver (the fourth member) is added, the average weight of the team becomes 165.5 lb.

You want to find out how much the driver weighs.

Is enough information given to find the driver's weight? If so, find the weight. If not, identify the missing information.

There isn't enough information. It would help if you had the highest weight and the lowest weights.

Annotations:
The response shows very little evidence of reasoning by stating "there isn't enough information." The response earns no points.

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Scoring Guide for question number 12:

A **4-point** response demonstrates mathematical communication by doing the following:

- Includes all four (4) c**omponents:** wood, surfacing, concrete, and total.
- **Presentation** has a layout that is clear, organized, includes identifications, and sequencing is appropriate.
- **Labels** for at least two of the three components (ft, ft^2, and ft^3) are used sufficiently to demonstrate understanding of and appropriate use.
- **Conversions** between measurements such as cubic feet to cubic yards, and **calculations** are appropriate and accurate.

A **3-point** response includes three of the four listed above.

A **2-point** response includes two of the four listed above.

A **1-point** response includes one of the four listed above.

A **0-point** response shows little or no mathematical understanding of the task.

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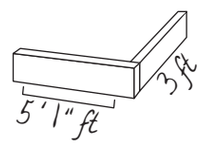
Annotated Example of a 4-point response for question number 12:

12 The homeowners ask you to figure out the total cost and explain it to them. Create an organized job list for the cost part of the estimate.

Make sure your estimate is supported by calculations of cost based on all materials used.

$41472\ in^3 \div 12^3 = 24\ ft^3 \div 3^3 = .88\ yds^3$



add 1 inch
to make "flush" edge
on each side

otherwise the boards couldn't be hammered together.

	Boards	
(2)	61 in	122
(3)	36 in	108
(2)	49 in	98
(2)	37 in	74

#	Surfacing	
1	36 x 36 =	1296
2	36 x 24	1728
2	16 x 12	384
2	8 x 12	192
3	36 x 8	864
2	36 x 12	864

$5328\ in^2 \div 12^2$

Total amount of board = 33.5 feet

cost = 33.5 ft about 34 ft x 150/f = $51.00

Total amount of concrete = 1 yds

cost = 1 x $40 = $40.00

Total area to surface = 37 sq ft

cost = 37 sq. ft x $.50 = $18.50

total cost = $109.50

Total cost = $109.50 or $110.00

Annotations:
This response clearly demonstrates mathematical communication. It includes all four **components.** The **presentation** is clear, identified, and organized. The **labels** (3 of 3) are appropriately used and the **calculations** and **conversions** are correct. By correctly addressing all four elements this response earns four points.

Mathematics

Annotated Example of a 3-point response for question number 12:

12 The homeowners ask you to figure out the total cost and explain it to them. Create an organized job list for the cost part of the estimate.

Make sure your estimate is supported by calculations of cost based on all materials used.

1. concrete:

1st step: $2/3 \times 3 \times 5 = 10\ ft^3$
2nd step: $2/3 \times 3 \times 4 = 8\ ft^3$
3rd step: $2/3 \times 3 \times 3 = 6\ ft^3$
total = $24\ ft^3/3 = 8\ yds^3$
$8\ yds^3 \times \$40 = \$320$

2. wood:

1st step: $3\ ft + (3\ ft \times 2\ ft) = 9\ ft$
2nd step: $3\ ft + (4\ ft \times 2\ ft) = 11\ ft$
3rd step: $3\ ft + (5\ ft \times 2\ ft) = 13\ ft$
total = $33\ ft$
$33\ ft \times \$1.50 = \$49.50$

3. surfacing:

1st step: $1\ ft \times 3\ ft = 3\ ft^2$
2nd step: $1\ ft \times 3\ ft = 3\ ft^2$
3rd step: $3\ ft \times 3\ ft = 9\ ft^2$
total = $15\ ft^2$
$15\ ft^2 \times \$.50 = \$7.50$

TOTAL:	
concrete	320
wood	49.50
surfacing	7.50
	$377.00

Total cost = $377.00

Annotations:
This response demonstrates mathematical communication by including all four **components** and has a **presentation** that is clear, identified, and organized. The response appropriately uses **labels** (2 of 3). One conversion error (24 cu ft/3) occurs. The response correctly addresses three of the four elements and so earns three points.

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Annotated Example of a 2-point response for question number 12:

12 The homeowners ask you to figure out the total cost and explain it to them. Create an organized job list for the cost part of the estimate.

Make sure your estimate is supported by calculations of cost based on all materials used.

Surface	Forms	Ready Mix
3 4 5 2 } = 14	3 · 3 9 3 · 4 12 3 · 5 + 15 36	10368 13824 17280 41472"
14 · $.50	36' · $1.50 =	.40 =
$7 —	$54 —	$? —

For ready mix, I changed the measurements into inches & multiplied for each step, coming up with. Then, I added the totals & changed from inches to cu yd. Forms lengthe · width. Took totals s added ↑, multiplied by $1.50. Surface added measurements total in feet times 50¢ = 7^{00}.

Total cost = $61 + ready-mix concrete

Annotations:
This response demonstrates mathematical communication by including all four **components** and has a **presentation** that is clear, identified, and organized.
No labels are used and the calculations are either incomplete or inaccurate.
The response correctly addresses two of the four elements earning two points.

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Annotated Example of a 1-point response for question number 12:

12 The homeowners ask you to figure out the total cost and explain it to them. Create an organized job list for the cost part of the estimate.

Make sure your estimate is supported by calculations of cost based on all materials used.

First thing you do is find out how much concrete you will need by multiplying 3 and 3 and then 3 and 1 and 3 and 1 again to get 15 and times that by 40 60.0. So you know thats 60 dollars then you 1 x 3 and 1 x 4 and 1 x 5 witch is 12 x 1.50 = 18 dollars. Then you go 15 x .50 = 7.50 + 60 + 18 = 85.5 dollars.

Total cost = $85.50

Annotations:
This response minimally demonstrates mathematical communication by including all four components. The information is not presented in an effective format for the situation. Calculations and conversions are incomplete and/or inaccurate. There are no labels used. The response correctly addresses one of the four elements earning one point.

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Annotated Example of a 0-point response for question number 12:

12 The homeowners ask you to figure out the total cost and explain it to them. Create an organized job list for the cost part of the estimate.

Make sure your estimate is supported by calculations of cost based on all materials used.

1.50
1.50
3.00 + 12.00
7.50 + 12.00 = 19.50
59.50
9.50
69.00

It says how much for each foot say just hopefully had the feet correctly and then add up how much.

Total cost = _____

Annotations:
This response does not demonstrate mathematical communication. It is difficult to ascertain if the four components are addressed. The presentation is unclear, not identified, and unorganized. Calculations and conversions are incomplete or inaccurate. There are no labels used. The response does not correctly address any of the elements earning no points.

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