

Section B Short Answer Questions

(6 to 10): 2 points each

- 6 Evaluate each expression.

Write each answer in the table.

Expression	Value
$-11 + 11$	
$-13 + (-3)$	
$(-5) - (-12)$	
$-10 + 30 \div (-5)$	

- 7 A rope was $5\frac{2}{3}$ feet long. Diego cut off $1\frac{5}{8}$ feet of the rope. How long is the rope now?

Write your answer as $\frac{m}{n}$ in simplest form, where m and n are integers, in the space below.

- 8 Evaluate $(-1\frac{1}{2}) \cdot (-\frac{4}{15})$.

Write your answer in the space below.

- 9 At 6 P.M., the temperature was 2.5°F . By midnight, it had dropped by 6.8°F . By 6 A.M. the next day, it had risen by 3.4°F . What was the final temperature in $^{\circ}\text{F}$?

Write your answer in the answer grid.

\ominus					
\odot	\odot	\odot	\odot	\odot	\odot
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

- 10 James paid \$13.20 for 12 mangoes. For every 5 mangoes that he bought, he got 1 mango free. Mary wants to buy 4 mangoes from the same shop. She has only \$5.10. How much does she still need?

Explain the steps used to compute the amount of money that Mary still needs.
Write your answer and explanation in the space below.

Section C Constructed Response

(11): 3 points; (12): 2 points

- 11 Charles says the sum of $-28 + 52$ is -80 . He explains that to find the answer, he first adds 28 and 52. Then, he multiplies the sum by -1 .
- Explain why Charles' reasoning is incorrect.
 - Evaluate $-28 + 52$.
 - Explain how you found the answer.

Write your answer and explanations in the space below.

- 12 Benjamin wants to buy 10 items from a supermarket. 5 of the items cost \$7.25 each, 1 of them costs \$12.55, and the rest cost \$4.60 each. Benjamin has only \$50. How much does Benjamin still need?

Write your answer and your work or explanation in the space below.



Assessment Guide

The Real Number System

25

Suggested Time:

30 min

Section A Multiple-Choice Questions

(5 × 2 = 10 points)

- 1 Which statement describes the value of $\sqrt{32}$?
- (A) The value of $\sqrt{32}$ is between 4 and 4.5.
 - (B) The value of $\sqrt{32}$ is between 4.5 and 5.
 - (C) The value of $\sqrt{32}$ is between 5 and 5.5.
 - (D) The value of $\sqrt{32}$ is between 5.5 and 6.
- 2 The length of the diagonal of a rectangle is $\sqrt{107}$ centimeters.

Which statement describes the length of the diagonal?

- (A) The length is between 10 and 11 centimeters.
- (B) The length is between 11 and 12 centimeters.
- (C) The length is between 12 and 13 centimeters.
- (D) The length is between 13 and 14 centimeters.

- 3 Compare the numbers below.

$$1.\overline{23}, \frac{9}{7}, -\sqrt{2}, -\sqrt[3]{3}, -2.3, 0.2\pi$$

Which statements are true?

Choose **all** that apply.

- (A) 0.2π is between $-\sqrt{2}$ and $1.\overline{23}$.
- (B) $-\sqrt{2}$ is between -2.3 and $-\sqrt[3]{3}$.
- (C) $\frac{9}{7}$ is the greatest number.
- (D) -2.3 is the least number.
- (E) Both $-\sqrt{2}$ and $-\sqrt[3]{3}$ are between -1.5 and -1 .

- 4 Which statements are true?

Choose **all** that apply.

- (A) The number 123.0 has 3 significant digits.
 - (B) The number 30.0012 has 6 significant digits.
 - (C) The number 0.0010 has 1 significant digit.
 - (D) The number 0.0047 has 2 significant digits.
 - (E) The number 2,000 has 4 significant digits.
- 5 What is the value of 605,498 correct to 3 significant digits?
- (A) 605,000
 - (B) 605,400
 - (C) 610,400
 - (D) 600,000

Section B Short Answer Questions

(6 to 10): 2 points each

- 6 Graph the position of $-\sqrt{51}$ on a number line.

Show your drawing in the space below.

- 7 Graph the following numbers on a number line, and state the greatest and the least numbers.

$$-2.4, \frac{2}{7}, 2\sqrt{3}, \sqrt[3]{68}, -\pi$$

Show your drawing, and write your answers in the space below.

- 8 Find the number of significant digits in each number.

Write each answer in the table.

Number	Number of Significant Digits
3.98	
0.0604	
3,543	
12.060	

- 9 The number e is a famous irrational number. Its value equals 2.7182818284...
Round this number to 4 significant digits.

Write your answer in the answer grid.

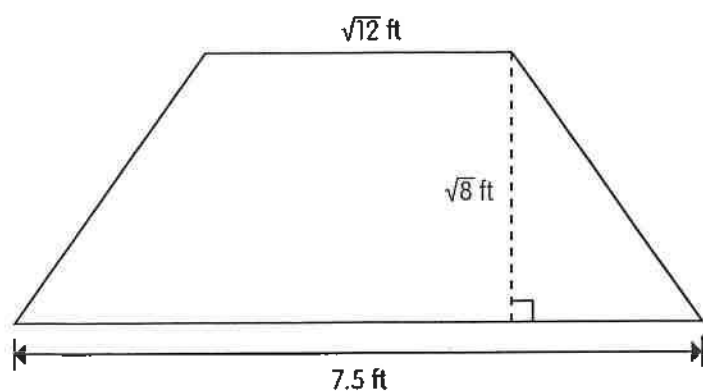
⊖					
•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

- 10 Evaluate $\frac{4 + \sqrt{5}}{1 - \pi}$. Round your answer to 3 significant digits.

Write your answer in the answer grid.

⊖					
•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

- 12 The dimensions of a trapezoid are shown.



Calculate the area of the trapezoid to 4 significant digits.

Explain how you worked out the answer in the space below.

Section C Constructed Response

(11): 3 points; (12): 2 points

11 This question has two parts.

Part A

Locate $\sqrt{34}$ on a number line.

Explain how you found its position on the number line.

Show your drawing and explanation in the space below.

Part B

Give another irrational number in the form of \sqrt{n} , where n is an integer.

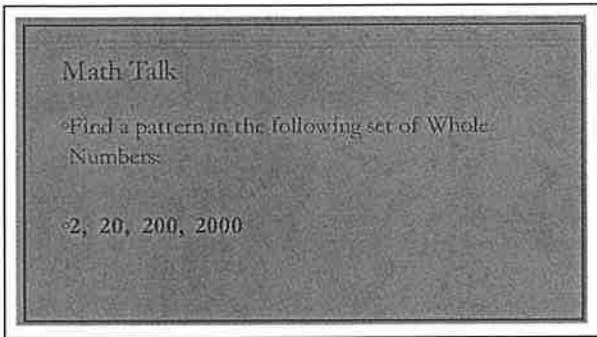
The value of this irrational number must be between $\sqrt{34}$ and 6.

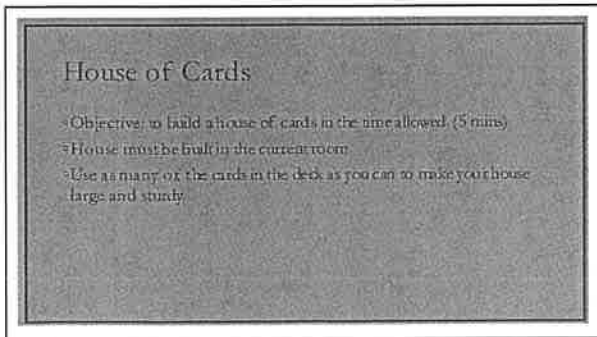
Write your answer in the space below.

Gateway Lab School

**Professional Development and support in using the materials
to deliver high quality...instructional experiences...addressing
the CCSS**







Obstacles

Think-Pair-Share

- What obstacles did we encounter?
- What was my first reaction/feeling?
- What did I want to do when I encountered the obstacle?
- What did we do as a group when we faced the obstacle?
- What was the result?

Engagement: Why?

- Contest to build the largest/most used cards house.
 - Rules were easy.
 - Materials were common and accessible.
- We ask our students to engage in activities of learning every day: are those experiences relevant to them all? Can they access a feeling of interest, wonder, awe?

Representation: What?

- What is a house?
- What will hold the cards up?
- What resources are available?
- What did the group do to respond to the obstacle?

We differentiate our presentations to meet the students' needs by removing obstacles they have toward successful learning.

Actions/Expressions: How?

- How do we know if a group succeeded?
- How does each one/group feel about their accomplishment or failure?

We formatively assess learning everyday and summatively for purposes of reporting. What does/ can assessments show about overcoming obstacles?

Response to Intervention

TEACHER STRATEGIES THAT WORK

Math Talk

Which one does NOT belong and why?



The RtI Tiers

Tier One - whole group instructional strategies in the "regular" classroom

Tier Two - small group intervention for struggling students

Tier Three - one-on-one intervention for faltering students

General RtI Strategies Dr. Fred Jones, Tools for Teaching

- Work the Crowd
- Praise-Prompt-Leave
- VIP (Visual Instruction Plan)
- Input-Output, Input-Output...
- Structured Practice
- Preferred Activity Motivation

More Strategies Special Education Guide 2013 2019

- | Tier 2 | Tier 3 |
|---------------------------|----------------------------|
| Small group instruction | Individualized instruction |
| Intentional Strategies | Teacher modeling |
| Slower pace | Direct instruction |
| Frequent progress monitor | Metacognition |
| Small group problems | Frequent progress monitor |

Pieces of the Puzzle

WHAT: The whole puzzle-mathematically proficient students and problem solvers

HOW: Empowered teachers proficient with standards-based instruction, best practices, within the Universal Design for Learning (UDL) working as a community of Professional Learners (PLC)

Some Puzzle Pieces:

1. Curriculum Resources (Math in Focus)
2. Administrative Support
3. Common Core Standards
4. Personal experiences in teaching
5. The 8 Math Practices
6. UDL Planning (Whole brain learning-brain research)
7. Your friendly neighborhood Math Coach

Personal Goals: Which piece of the puzzle would I benefit from a greater focus this Trimester?

Essential Teaching Strategies:

Reasoning with the Common Core State Standards

Promoting Reasoning and Problem Solving

<p>Identify the CCSS:</p> <hr/> <p>Standard:</p>	<p>Describe Activity:</p>
<p>Task Analysis</p> <p>1-Memorization</p> <p>2- Procedure w/o Connectedness</p> <p>3- Procedure with Connectedness</p> <p>4- Complex Multi-step Mathematics</p>	<p>Reasoning for Rating:</p>

Gateway Lab School

**Revised pacing guides from vendor according to local school
calendar and needs**

Grade 3

September 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2 <hr/>	MAP	MAP	MAP	MAP
9 Chapter 1 (12 days)				
				20 End Ch. 1
23. Review + Assessments			25 Chapter 2 (14 days)	
30 <hr/>				

October 2019

Monday	Tuesday	Wednesday	Thursday	Friday
				4 <hr/>
				11 <hr/>
			17 End Ch. 2	18 Review +
21 Assessments Ch. 2	22	23 Chapter 3 (12 days)		

November 2019

Monday	Tuesday	Wednesday	Thursday	Friday
				1
			7 End Ch. 3	8 Review
11 <hr/>	12 Assessment	13 Ch. 3	14 Chapter 4 (19 days)	
				END TRIMESTER!
<hr/> NO CLASSES <hr/>				

December 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2				
		11 End Ch. 4	12 Review + Assess Ch. 4	13
16 Chapter 5 (12 days)				
WINTER BREAK				

January 2020

Monday	Tuesday	Wednesday	Thursday	Friday
			2 Ch. 5 (cont)	
				10 End Ch-5
13 Review + Assess Ch. 5	14	15 Chapter 6 (10 days)		
20				
	28 End Ch. 6	29 Review + Assess Ch. 6		31 Ch. 7 (13 days)

February 2020

Monday	Tuesday	Wednesday	Thursday	Friday
3				
				14
17		19 End Ch. 7	20 Review + Assess Ch. 7	21
24 Chapter 8 (10 days)				

March 2020

Monday	Tuesday	Wednesday	Thursday	Friday
2				6
9	10	11	12	13
End Ch. 8	Review + Assess Ch. 8		Chapter 9 (14 days)	
16				
23				
30				

April 2020

Monday	Tuesday	Wednesday	Thursday	Friday
	1	2	3	4
	End Ch. 9	Review + Assess		Chapter 10 (9 days)
6				10
13	Spring		break	
20			23	24
			End Ch. 10	Review + Assess
25	26			
Ch. 10	Chapter 11 (8 days)			

May 2020

Monday	Tuesday	Wednesday	Thursday	Friday
				1
			7	8
			End Chapter 11	Assess Ch. 11
11		MAP	MAP	15
Assess Ch. 11				15
18	Chapter 12 (9 days)			
25				

Grade 4

September 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2	MAP	MAP	MAP	MAP
9	Chapter 1 (18 days)			
30				

October 2019

Monday	Tuesday	Wednesday	Thursday	Friday
	1	2	3	4
		End Ch. 1	Review +	
7	8			11
Assess Ch. 1	Chapter 2 (22 days)			
18				

November 2019

Monday	Tuesday	Wednesday	Thursday	Friday
				1
			8	9
			End Ch. 2	Review +
11	12	13		
	Assess Ch. 2	Chapter 3 (34 days)		
				END TRI 1
NO CLASSES				

December 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2				
				13 Assess - mid ch. 3
WINTER BREAK				

January 2020

Monday	Tuesday	Wednesday	Thursday	Friday
			2	
		15 End Ch. 3	16 Review + Assess Ch. 3	17
20	21 Chapter 4 (18 days)			

February 2020

Monday	Tuesday	Wednesday	Thursday	Friday
3				
			13 End Ch. 4	14
17	18 Review + Assess Ch. 4	19	20 Chapter 5 (14 days)	
24				

March 2020

Monday	Tuesday	Wednesday	Thursday	Friday
2				6
		11	END TRI 2	13
		End Ch. 5	12	Review + Assess Ch. 5
10				20
Chapter 6 (8 days)			26	27
			End Ch. 6	Review +
30	31	1 April		
Assess Ch. 6	Chapter 7 (8 days)			

April 2020

Monday	Tuesday	Wednesday	Thursday	Friday
			8	
			9	10
			End Ch. 7	
_____ SPRING BREAK _____				
20	21	22		
Review + Assess Ch. 7		Chapter 8 (8 days)		
				21

May 2020

Monday	Tuesday	Wednesday	Thursday	Friday
				1
				End Ch. 8
4	5	6		
Review + Assess Ch. 8		MAP	MAP	MAP
11				15
Chapter 9 (7 days)				
		20	21	22
		End Ch. 9	Review + Assess Ch. 9	
25				

Grade 5

September 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2	MAP	MAP	MAP	MAP
9	Chapter 1 (18 days)			
30				

October 2019

Monday	Tuesday	Wednesday	Thursday	Friday
	1		3 End Ch. 1	4
7	8 Review + Assess Ch. 1	9 Chapter 2 (15 days)		11
28	29	30 End Ch. 2	31 Review +	1

November 2019

Monday	Tuesday	Wednesday	Thursday	Friday
				1 Assess Ch. 2
4	Chapter 3 (21 days)			
11				
				END TRI 1
NO CLASSES				

Monday	Tuesday	Wednesday	Thursday	Friday
2		4 End Ch. 6	Review END TRI 2	6
9 Assess Ch. 6	10 Chapter 7 (9 days)			20
23 End Ch. 7	24 Review + Assess Ch. 7	25	26 Chapter 8 (6 days)	

April 2020

Monday	Tuesday	Wednesday	Thursday	Friday
			2 End Ch. 8	3 Assess Ch. 8
6 Chapter 9 (12 days)				10
_____ SPRING BREAK _____				
20				
		29 End Ch. 9	30 Review +	

May 2020

Monday	Tuesday	Wednesday	Thursday	Friday
				1 Assess Ch. 9
4 Chapter 10 (9 days)				15
		MAP	MAP	MAP
		20 End Ch. 9	21 Review + Assess Ch. 9	22
25				

December 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2				
		11 End Ch. 3	12 Review + Assess Ch. 3	13
16 Chapter 4 (10 days)				
_____		WINTER BREAK		

January 2020

Monday	Tuesday	Wednesday	Thursday	Friday
			2	
		8 End Ch. 4	9 Review + Assess Ch. 4	10
13 Chapter 5 (28 days)				
20				
/		29 Mid Ch. 5 Assess		

February 2020

Monday	Tuesday	Wednesday	Thursday	Friday
3				
			13 End Ch. 5	14 /
17 /	18 Review + Assess Ch. 5	19	20 Chapter 6 (11 days)	

March 2020

Grade 6

September 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2	MAP	MAP	MAP	MAP
9				
Chapter 1 (6 days)				
16	17	18		20
End Ch. 1	Assess Ch 1	Chapter 2 (8 days)		
				27
				End Ch. 2
30				

October 2019

Monday	Tuesday	Wednesday	Thursday	Friday
	1	2	3	4
	Review + Assess Ch. 2		Chapter 3 (15 days)	
7				11
14				
21	22	23	24	
End Ch. 3	Review + Assess Ch. 3		Chapter 4 (11 days)	

November 2019

Monday	Tuesday	Wednesday	Thursday	Friday
				1
			8	9
			End Ch. 4	Review +
11	12	13		
	Assess Ch. 4	Chapter 5 (14 days)		
				END TRI 1
NO CLASSES				

December 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2				
	10 End Ch. 5	11 Review + Assess Ch. 5	12	13 Chapter 6 (10 days)
WINTER BREAK				

January 2020

Monday	Tuesday	Wednesday	Thursday	Friday
			2	
	7 End Ch. 6	8 Review + Assess Ch. 6	9	10 Chapter 7 (13 days)
20	21 End Ch. 7	22 Review + Assess Ch. 7	23	24 Chapter 8 (12 days)

February 2020

Monday	Tuesday	Wednesday	Thursday	Friday
3				
10 End Ch. 8	11 Review + Assess Ch. 8	12	13 Chapter 9 (7 days)	14
17				
	25 End Ch. 9	26 Assess Ch 9	27 Chapter 10 (9 days)	

March 2020

Monday	Tuesday	Wednesday	Thursday	Friday
2				6
			END TRI 2	/
		11 End Ch. 10	12 Review + Assess Ch. 10	13
16 Chapter 11 (10 days)				20
				/
				27
30 End Ch. 11	31 Review +			

April 2020

Monday	Tuesday	Wednesday	Thursday	Friday	
		1 Assess Ch. 10	2 Chapter 11 (10 days)		
				10	
		SPRING BREAK			
20			23 End Ch. 11	24 Review +	
27 Assess Ch. 11	28 Chapter 12 (6 days)				

May 2020

Monday	Tuesday	Wednesday	Thursday	Friday
				1
	5 End Ch. 12	6 Assess Ch. 12	7 MAP	MAP
11 Chapter 13 (11 days)				15
				/
25		27 End Ch. 11	28 Review + Assess Ch. 11	29

Grade 7

September 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2	MAP	MAP	MAP	MAP
9	Chapter 1 (34 days)			
				28
				mid Chapter Assess
30				

October 2019

Monday	Tuesday	Wednesday	Thursday	Friday
	1			4
				11
				18
		30 End Ch. 1	31 Review + Assess →	

November 2019

Monday	Tuesday	Wednesday	Thursday	Friday
				1 Assess
4	Chapter 2 (23 days)			
11				
			21 mid-Chapter Assess	22 END TRI 1
NO CLASSES				

December 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2				
		11 End Chapter 2	12 Review + Assess Ch. 2	13
16 Chapter 3 (13 days)				
_____		WINTER BREAK		

January 2020

Monday	Tuesday	Wednesday	Thursday	Friday
			2	
13 End Ch. 3	14 Review + Assess Ch. 3	15	16 Chapter 4 (18 days)	
20				
/				

February 2020

Monday	Tuesday	Wednesday	Thursday	Friday
3				
	11 End Ch. 3	12 Review + Assess Ch. 3	13	14
17	18 Chapter 4 (17 days)			
/				

March 2020

Monday	Tuesday	Wednesday	Thursday	Friday
2				6
9			END TRI 2 12 End Ch. 4	13 Review +
16 Assess Ch. 4	17 Chapter 5 (10 days)			
30 End Ch. 5	31 Review + →			

April 2020

Monday	Tuesday	Wednesday	Thursday	Friday
		1 Assess Ch 5	2 Chapter 6 (9 days)	10
SPRING BREAK				
20		22 End Ch. 6	23 Review + Assess Ch. 6	24
27 Chapter 7 (11 days)				

May 2020

Monday	Tuesday	Wednesday	Thursday	Friday
				1
3 End Ch. 7	4 Assess Ch. 7	5 Chapters 8+9 (11 days)		
		MAP	MAP	15
25				29 End Chs 8+9

Grade 8

September 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2	MAP	MAP	MAP	MAP
9				
Chapter 1 (9 days)				
			19	20
			End Ch 1	Review +
23	24			
Assess Ch. 1	Chapter 4 (11 days)			
30				

October 2019

Monday	Tuesday	Wednesday	Thursday	Friday
	1			4
			10	11
			End Ch 4	
14	15	16		
Review + Assess	Chapter 5 (14 days)			
			31	

November 2019

Monday	Tuesday	Wednesday	Thursday	Friday
				1
				End Ch. 5
4	5	6		
Review + Assess	Chapter 6 (12 days)			
11				
				END TRI 1
NO CLASSES				

December 2019

Monday	Tuesday	Wednesday	Thursday	Friday
2 End Ch. 6	3 Review + Assess Ch. 6	4	5 Chapter 7 (13 days)	
WINTER BREAK				

January 2020

Monday	Tuesday	Wednesday	Thursday	Friday
			2 End Chap. 7	3 Review +
6 Assess Ch. 7	7 Chapter 8 (9 days)			
				17 End Ch. 8
20	21 Review + Assess Ch. 8	22	23 Chapter 9 (16 days)	

February 2020

Monday	Tuesday	Wednesday	Thursday	Friday
3				
			13 End Ch. 9	14
17	18 Review + Assess Ch. 9	19	20 Chapter 10 (9 days)	
				28

March 2020

Monday	Tuesday	Wednesday	Thursday	Friday
2	3 End Chapter 10	4 Review + Assess	5 Chap. 10 END TRI 2	6
9 Chapter 11 (10 days)				20
23 End Ch. 11	24 Review + Assess Ch. 11 31	25	26 Chapter 12 (19 days)	

April 2020

Monday	Tuesday	Wednesday	Thursday	Friday
		1		
	7 End Ch. 12	8 Review + Assess Ch. 12	9	10
SPRING BREAK				
20 Chapter 2 (13 days)				
27			30	

May 2020

Monday	Tuesday	Wednesday	Thursday	Friday
				1
		6 End Ch. 2	7 Review + Assess Ch. 2	8
MAP	MAP	MAP	14 Chapter 3 (7 days)	15
25	26 End Ch. 3	27 Review + Assess Ch. 3	28	