Mathematics/ Matemáticas

Roanoke City
PUBLIC SCHOOLS

Teacher Contact Information:
Información de contacto del profesor:

Family Learning Resources: Remote Learning Edition

Recursos de Aprendizaje Familiar: Edición de Aprendizaje Remoto

8th Grade/8° grado

Family Learning Resources: Remote Learning Edition

Roanoke City Public Schools

Winter 2026 - 5 Days of Resources

Content Areas Included

- English Language Arts
- Mathematics
- Science
- Social Studies

Objective

This document will provide families with remote learning resources in the four core content areas for the anticipated extended closure of schools due to inclement weather.

Recommendations for Usage

- These necessary materials focus on reinforcing previously learned concepts - no new materials are covered.
- Students should be able to complete with minimal adult assistance. However, discussing the purpose and understandings from resources can help establish a deeper connection to the materials.
- Students are encouraged to write down questions that they might have about the materials so that they may be discussed with teachers.
- In addition to the completion of these materials, RCPS recommends that students take time to read - either independently or with others.

Questions & Follow Up Notes

Please do not hesitate to reach out to your student's teachers with any questions. These resources are designed to support remote learning during school closures and help minimize disruptions to instruction. **Students should bring this booklet with them when they return to school.**

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Recursos de Aprendizaje Familiar: Aprendizaje Remoto

Roanoke City
PUBLIC SCHOOLS

Invierno 2026 – 5 días de recursos

Áreas de contenido

- Lenguaje (Inglés)
- Matemáticas
- Ciencias
- Estudios Sociales

Objetivo

Este documento ofrece a las familias recursos de aprendizaje remoto en las cuatro áreas académicas principales, pensados para apoyar la continuidad educativa durante cierres escolares prolongados debido a las inclemencias del tiempo.

Recomendaciones de Uso

- Estos materiales necesarios se centran en reforzar conceptos aprendidos previamente - no se cubre material nuevo.
- Los estudiantes deberían poder completar las actividades con una asistencia mínima de un adulto. Sin embargo, conversar sobre el propósito y los aprendizajes de los recursos puede ayudar a establecer una conexión más profunda con el material.
- Se anima a los estudiantes a escribir las preguntas que puedan tener sobre los materiales para que puedan ser comentadas con los maestros.
- Además de completar estos materiales, RCPS recomienda que los estudiantes dediquen tiempo a la lectura, ya sea de manera independiente o con otras personas.

Preguntas y notas de seguimiento

Por favor, no dude en comunicarse con los maestros de su estudiante si tiene alguna pregunta. Estos recursos están diseñados para apoyar el aprendizaje remoto durante los cierres escolares y ayudar a minimizar las interrupciones en la instrucción. **Los estudiantes deben traer este folleto cuando regresen a la escuela.**

Math 8/Math 7 Advanced - SOL 8.NS.1 – Relationships Between Real Numbers

1. Between which two consecutive natural numbers does $\sqrt{89}$ lie? Which number is the better approximation? How do you know?

2. Circle all the numbers that lie between 7 and 8.

$$\sqrt{27}, \quad \sqrt{78}, \quad \sqrt{58}, \quad \sqrt{47}, \quad \sqrt{61}$$

3. Arrange the five numbers shown from least to greatest.

$$-\sqrt{36}, \quad 3.2 \times 10^2, \quad 4.34 \times 10^1, \quad 125\%, \quad -\frac{9}{2}$$

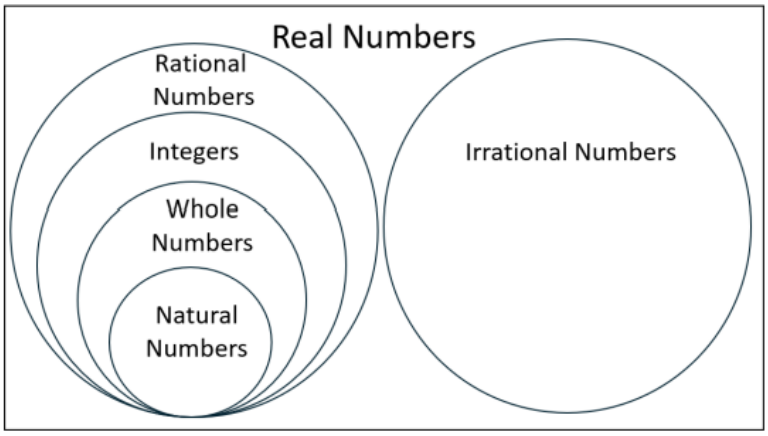
Least **Greatest**

4. Arrange the numbers in descending order.

$2\frac{1}{3}$	-2.3	23.5%	$\frac{25}{9}$

Math 8/Math 7 Advanced - SOL 8.NS.2 – Subsets of Real Numbers

1. Consider the diagram of the relationship between the sets of real numbers.



Place each value into the most appropriate subset using the diagram above.

Value	Subset
3.14	
$\frac{2}{3}$	
$\sqrt{2}$	
$-\frac{40}{5}$	
0	
17	

2. For each subset of the real numbers, provide a description, one example, and one non-example. Justify your reasoning.

Subset	Description	Example	Non-example
Rational Numbers			
Irrational Numbers			
Integers			
Whole Numbers			
Natural Numbers			

Math 8/Math 7 Advanced - SOL 8.CE.1 – Solving Contextual Problems

Percent Increase/Percent Decrease

$$\text{Percent of change} = \frac{\text{new - original}}{\text{original}} \cdot 100$$

1. Gasoline was originally $2.25 per gallon. It is now $2.55 per gallon. What is the percent of increase?

2. A computer was originally $1200. It is now only $900. What is the percent of decrease?

Discount, Markup, Tax, and Tip

3. A pair of shoes cost $109 at Sneaker City. At the Labor Day sale, they are 20% off. What is the sale price of the shoes?

4. During a sale, a skateboard is reduced by 50%. If the original price was $70, what is the discounted price?

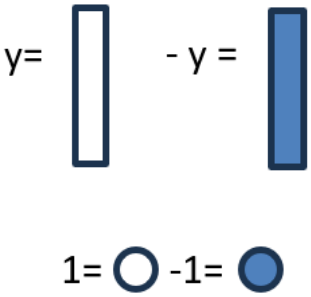
5. Kristiana and her family went out to dinner. The total bill was $68.00 before tax and tip. The tax rate was 6%. Kristiana wants to tip 20% on the total before tax. How much does Kristiana pay for dinner, including tax and tip?

6. Veronica buys a shirt for $22.00. If the sales tax is 5.5%, what is the total price Veronica pays for the shirt including tax?

Math 8/Math 7 Advanced - SOL 8.PFA.1 – Combine Like Terms and Simplify Expressions

Here is an expression: $-7y + 4 + 5y - 5 - 2y + 2$

Using this key, draw the expression:



Draw the expression again with the like terms combined:

Write the simplified expression in algebraic terms.

For the problems below, combine like terms and write the simplified expression.

Expression: $-6q + 8q - 5 + 2q + 2 - 4q$

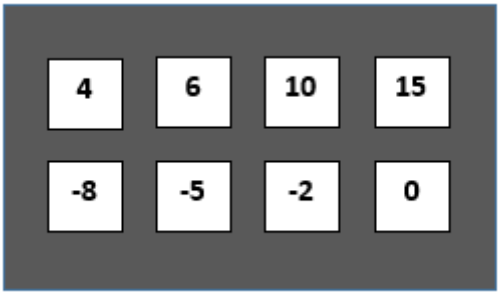
Expression: $-4x - 2y + 4 + 3y - 3 - 4y$

Expression: $5m + 4 - m - 9m - 5m - 3$

Math 8/Math 7 Advanced - SOL 8.PFA.5 – Solving Inequalities and Contextual Situations

1. Solve the inequality and then identify the solutions in the box that satisfy the inequality.

$10x - 8 > 2(4x + 2)$



Complete the table. An example (row 1) has been completed for you.

4 Representations

Example	Say it another way	Possible answers	Math inequality
Riders cannot be less than 50 inches tall	Riders have to be 50 inches or more than 50 inches	50, 51, 52, 53, …	r ≥ 50
		16, 16.1, 16.2, 16.3, 16.4, …	
	The teacher will only provide students with 2 chances at retaking an assessment.		
			m ≤ 42
The school can send at most 8 students to the competition.			