

# 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**

**7th Grade/7° grado**



# Family Learning Resources: Remote Learning Edition

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



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.**

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Math 7/Math 6 Advanced – SOL 7.CE.1 – Operations with Rational Numbers

**A City Block**

Directions: For each situation, model each on the number line, then determine an operation and work the problems, and state your answer.

The distance of one city block is $\frac{1}{2}$ mile. Use this information for each situation.			
Situation	Number line	Work	Answer
1. If Jose walked 3 <b>blocks</b> , how many miles did he travel?			
2. If Karen walked $1\frac{1}{2}$ <b>blocks</b> , how many miles did she travel?			
3. If Scott stopped after walking $\frac{1}{2}$ of a <b>block</b> , how many miles did he travel?			
4. Eric and David are $4\frac{1}{2}$ <b>blocks</b> away from each other. How many miles are they apart?			
5. If Jenn walked $1\frac{1}{4}$ <b>miles</b> , how many blocks did she travel?			
6. If April walked $\frac{3}{4}$ of a <b>mile</b> , how many blocks did she travel?			

7. Compare the six problems. How are they similar? How are they different?

**Estimate, Solve, Justify**

Show all of your work in each box.

Problem	Estimate	Solve
The temperature on Antarctica's coastline is 14 °F and decreases 4 degrees each hour. The temperature deep inland remains -76 °F. After 4 hours, what is the difference between the coastline and inland temperature?		
<b>Justify your answer</b>		

**Pizza Topping Poll**

<u>Topping</u>	<u>Percent of Those Polled</u>
Pepperoni	55%
Cheese	29%
Sausage	16%

To determine what toppings would be needed for a pizza party for **800 students**, a school used data provided by the International Pizza Association. What are some general statements you can make about these numbers?

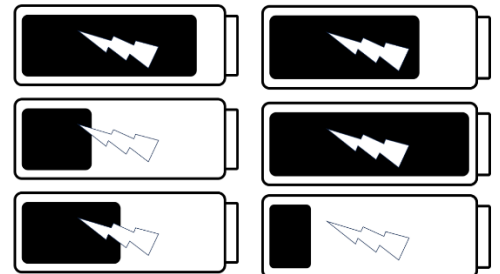
Complete the ratio table to find an accurate account of the number of people for each topping of pizza.

Percent	Number of People
1	
5	40
10	80
15	
<b>16</b>	
20	
<b>29</b>	
30	
50	
<b>55</b>	

**How Much Phone Battery Do I Have Left?**

Ever look at your phone battery and wonder...How much time do I really have left? Your phone uses a battery icon to show how much power is left in the battery. When you glance at the icon, you can get a good estimate of how much battery life remains before you need to recharge the battery.

- a. Using the pictures, estimate how much battery power remains for each cell phone battery icon.
  
- b. When your phone is 100% charged your battery will last about 8 hours. Based on your estimates, determine how much time you have remaining before you need to recharge your phone.



**Math 7/Math 6 Advanced – SOL 7.PFA.2 – Expressions**

**You Are the Teacher**

Ms. Taylor needs your help grading her students' work. Below are problems that students worked and the answers they got. They showed their work, so your job is to decide who is correct and where the other student made a mistake in using the Properties of Real Numbers.

<p align="center">Jake's work:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">Step 1</td><td style="padding: 2px;"><math>2(-5 + 3)</math></td></tr> <tr><td style="padding: 2px;">Step 2</td><td style="padding: 2px;"><math>2(-5) + 2(3)</math></td></tr> <tr><td style="padding: 2px;">Step 3</td><td style="padding: 2px;"><math>-10 + 6</math></td></tr> <tr><td style="padding: 2px;">Step 4</td><td style="padding: 2px;"><math>-4</math></td></tr> </table>	Step 1	$2(-5 + 3)$	Step 2	$2(-5) + 2(3)$	Step 3	$-10 + 6$	Step 4	$-4$	<p align="center">Randy's work:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">Step 1</td><td style="padding: 2px;"><math>2(-5 + 3)</math></td></tr> <tr><td style="padding: 2px;">Step 2</td><td style="padding: 2px;"><math>2(-5) + 3</math></td></tr> <tr><td style="padding: 2px;">Step 3</td><td style="padding: 2px;"><math>-10 + 3</math></td></tr> <tr><td style="padding: 2px;">Step 4</td><td style="padding: 2px;"><math>-7</math></td></tr> </table>	Step 1	$2(-5 + 3)$	Step 2	$2(-5) + 3$	Step 3	$-10 + 3$	Step 4	$-7$
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<p>Who is correct? _____</p> <p>In what step was the error made by the other student? _____ What error was made?</p> <p>_____</p> <p>_____</p>																	

<p align="center">Jake's work:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">Step 1</td><td style="padding: 2px;"><math>5x + 7 - 8x + 4</math></td></tr> <tr><td style="padding: 2px;">Step 2</td><td style="padding: 2px;"><math>5x + 7x - 8 + 4</math></td></tr> <tr><td style="padding: 2px;">Step 3</td><td style="padding: 2px;"><math>12x - 4</math></td></tr> </table>	Step 1	$5x + 7 - 8x + 4$	Step 2	$5x + 7x - 8 + 4$	Step 3	$12x - 4$	<p align="center">Randy's work:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">Step 1</td><td style="padding: 2px;"><math>5x + 7 - 8x + 4</math></td></tr> <tr><td style="padding: 2px;">Step 2</td><td style="padding: 2px;"><math>5x - 8x + 7 + 4</math></td></tr> <tr><td style="padding: 2px;">Step 3</td><td style="padding: 2px;"><math>-3x + 11</math></td></tr> </table>	Step 1	$5x + 7 - 8x + 4$	Step 2	$5x - 8x + 7 + 4$	Step 3	$-3x + 11$
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**Evaluating Expressions Practice**

Evaluate each expression, showing each step as you apply the order of operations in the space to the right of each problem.

<p align="center">What is the value of <math>6 + x \div 3 \cdot y</math> when <math>x = 15</math> and <math>y = 2</math>?</p>	
<p align="center">What is the value of <math>4m + n - p^3</math> when <math>m = -2</math>, <math>n = 5</math>, and <math>p = 4</math>?</p>	

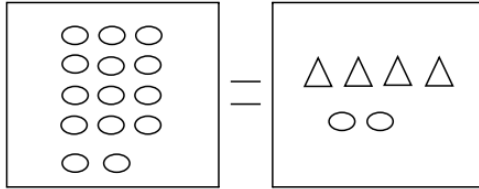
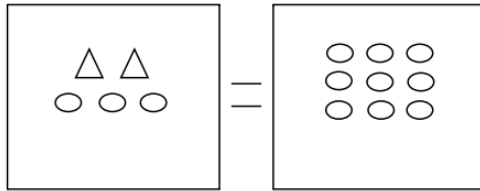
### Balances to Two-Step Equations

**Directions:** Write the equation based on the pictorial representation. Solve each equation using inverse operations. Check your work.

$\triangle = x$        $\circ = 1$

SOLVE

CHECK



### Two-Step Equations to Balances

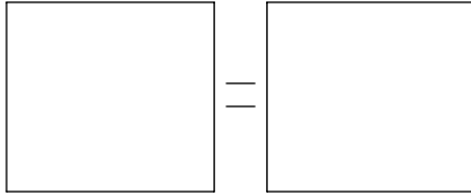
**Directions:** Draw a pictorial representation for each equation. Solve and check each equation.

$\triangle = x$        $\circ = 1$

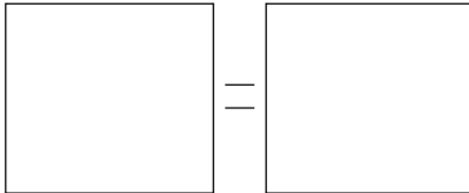
SOLVE

CHECK

$4x + 2 = 10$



$11 = 5x + 6$



	Julie's work:	Ramey's work:
Step 1	$x \div 7 = 35$	Step 1 $x \div 7 = 35$
Step 2	$7(x \div 7) = (35)7$	Step 2 $\frac{x \div 7}{7} = \frac{35}{7}$
Step 3	$x = 245$	Step 3 $x = 5$

In what step was the error made by the other student? \_\_\_\_\_ What error was made?

\_\_\_\_\_

\_\_\_\_\_

**Math 7/Math 6 Advanced – SOL 7.PFA.4 – Inequalities  
Scenario Set**

**Directions:** Read each scenario in the first column. Complete each row finding the inequality that could be used to represent the scenario, solving the inequality, and finding at least three values that are part of the solution for the scenario.

Scenarios	Which inequality could be used to represent and solve this scenario? You can use an inequality more than once. $2x + 22 > 50$ $2x + 22 \geq 50$ $2x + 22 \leq 50$ $2x + 22 < 50$	Solve the inequality	Identify at least three values that are part of the solution set
Suraya has \$50 to spend at the movies. She will spend \$22 for her ticket and popcorn. If candy costs \$2 a box, how many boxes could she buy?			
The Eagles basketball team has 22 points and their opponent has 50. How many more 2 point baskets do the Eagles need to get over their opponents to win the game?			
Kian has \$22 saved and earns \$2 per week. How many weeks will it take him to earn at least \$50?			
There are 50 seats on a school bus and 22 are already filled. If each seat holds two people, how many more people can fit on the bus?			

**Inequality Practice Sheet**

**Part I:** For each of the given situations, write the inequality.

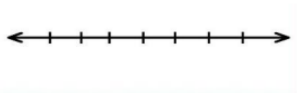
- Children 10 and under will be admitted to the museum at no charge.
- In football, you need at least 10 yards for a first down.

**Part II:** Solve each inequality. Then graph the solution.

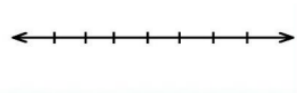
4.  $3e + 5 > 17$

5.  $c - (-1) \leq 12$

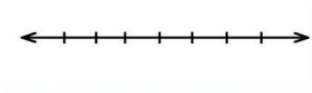
6.  $2f + 12 < 2$



7.  $\frac{n}{2} < -6$



8.  $3 - x > -5$



9.  $0.75y \geq -1.50$

