The Mountain

by ReadWorks

There are four peaks to climb until Manny reaches the top of the mountain. Each ledge is thinner and more dangerous than the last. Thankfully, he has a strong cane. He uses the cane to pull himself up. The climb is cold and snowy.

Day turns to night and back to day again. A strong gust of wind threatens to blow him off-course. But he persists.

The last thing Manny remembers is opening his eyes at the bottom of the mountain. He doesn't remember how he got there. To make things even stranger, he is wearing a fancy tuxedo.

The woman he loves is at the top of the mountain, waiting. He can hear her sweet voice, singing.

He remembers that she is waiting for him, but he doesn't remember anything else. Manny guesses he must have had an accident.

_Maybe I hit my head and now I have amnesia!_ he thinks.

The snow is thick and cold. It gets in his mouth as he climbs. He must be hungry because it tastes
sweet like sugar.

"Hello! Is anyone there?" Manny asks.

"Hello! Is anyone there?" he hears back. It's the sound of his own voice-an echo coming back at him.

"I love you! I'm waiting for you!" he hears. Now this, this is not his voice. This is the sound of his love calling for him.

He climbs higher and higher. Closer and closer. His arms ache from pulling. His tuxedo is covered in snow. Manny is soaking wet and exhausted. But he is also determined to get to the top.

"I love you! I'm coming!" he calls back.

He hears what he thinks is the faint sound of laughter. Deep and booming. The laughter of the gods?

Suddenly, the mountain is flooded with light. It's as if the sun were behind a door that was flung open suddenly.

The mountain begins to spin, and Manny hangs on with all his might.

"Why is this happening?" he cries. But no answer comes.

The mountain spins and spins. The room spins and spins. It's bright and then dark again. He sees trees and bright lights. Manny closes his eyes and falls off the mountain. He fears this could be the end.

When he lands, it is warm and soft. He feels himself lifted through the air. It is as if fate has saved him. The next words he hears are:

"Whoops, that was a close call. We almost lost our groom!"

"Good catch!" says another voice.

Manny opens his eyes and find himself on top of the mountain. Bella! The woman he loves! He rubs the snow from his eyes. The whirlwind had somehow picked him up and placed him right next to her.

Bella stands in a pile of white snow, wearing a beautiful wedding dress. Manny laughs because he's soaking wet and dirty, covered in sticky snow.

He kisses her and she giggles. "You taste like candy!" she says. "I'm so glad you're back! I thought you would miss the wedding!"

"Wedding?" Manny says. "I don't remember! Are we getting married?"

"Oh no! Not us," Bella says, laughing. "Them!"

She points to the sky, and for the first time he sees everything. There is a skylight and sunshine. There is music playing. And people. Giant people!

Manny screams and falls back into the snow. Giants! As tall as the mountain! Taller! They come by
and put their faces, with huge eyeballs as big as Manny's head, right up to him.

He thinks back to the laughter he heard before and the sunlight, suddenly so bright. Gods! It's all the work of Gods.

Suddenly, he is lifted up into the air. A giant hand is coming for him. This is surely the end now. A giant eye, a giant mouth. He is about to be eaten!

And then he sees it, a giant... napkin?

He hears Bella laughing below him as the soft napkin cleans his ears, his face, and his suit. When he is completely clean, he is placed back on top of the mountain's snowy peak. He stands upright next to Bella, and she holds his hand. The giant walks away as if nothing unusual at all has happened.

"You look beautiful," Bella says. "All clean! Are you ready?"

Music starts to play. Manny hears a voice say: "Introducing the bride and groom!"

The mountain is moving through the air, soaring, rolling. Bella grabs his hand tightly and whispers, "Get ready."

One of the giants leans down and pats his head. He notices she looks just like Bella. She's dressed in a beautiful white gown. This giant is also a bride.

"You're beautiful, little man!" the giant says. At that, she takes out a giant knife.

The mountain tips slightly, as if a slice is being cut out of it. He sees the bride feeding cake to the groom. The groom takes a big bite, and she smears frosting all over his face.

_That's why the snow tasted so sweet, Manny thinks. It's not snow at all. It's cake frosting!_

The snowy mountain is wheeled back into the corner, and Bella and Manny are finally alone together.

"I love you!" Manny says, and he takes her hand and kisses her sweetly. The kiss is every bit as sweet as the cake they are standing on. Two wedding cake toppers in love.
1. What is "the mountain" in the story?
   A. a wedding cake
   B. a real mountain
   C. a table
   D. a cupcake

2. Where does the story take place?
   A. on a mountain
   B. in a bakery
   C. at a wedding
   D. on Mount Olympus

3. The "mountain" in the story is not a normal mountain. What evidence from the story supports this conclusion?
   A. The "mountain" has four peaks.
   B. The "snow" tastes sweet like sugar.
   C. There are strong gusts of wind.
   D. Manny is wearing a tuxedo.

4. Read the following sentences:

   "Manny closes his eyes and falls off the mountain. He fears this could be the end.
   "When he lands, it is warm and soft. He feels himself lifted through the air. It is as if fate has saved him. The next words he hears are:
   "'Whoops, that was a close call. We almost lost our groom!'"

   What inference can be made about what happens in these sentences?
   A. Manny falls off the cake and lands on the floor.
   B. Manny falls off the mountain and lands in the snow.
   C. Manny falls off the mountain and has a hallucination.
   D. Manny falls off the cake and is caught by a human.
5. What is this story mostly about?
   A. a dangerous, snowy mountain
   B. Manny and Bella's wedding
   C. the wedding of two gods
   D. two wedding cake toppers in love

6. Read the following sentences:

"He remembers that she is waiting for him, but he doesn't remember anything else. Manny guesses he must have had an accident.

"Maybe I hit my head and now I have amnesia! he thinks."

What does "amnesia" mean as used in this sentence?
   A. blood loss
   B. an accident
   C. memory loss
   D. an injury

7. Choose the answer that best completes the sentence below.

At the beginning of the story, the setting appears to be on a mountain, _______ by the end of the story, this is not the case.
   A. but
   B. so
   C. also
   D. after

8. Who is getting married in the story?

9. Why are Manny and Bella wearing wedding clothing?

10. In the story, all is not as it originally seems. As the story progresses, the author gradually gives the reader more details and reveals what the story is really about.

Identify and explain the key points in the story where the reader is given clues about what the story is really about.
“Current Events” Analysis

Due Date: 9/3/19

Directions:
- Obtain a current event article from a major newspaper, magazine, or journal. (Newsela, Time for Kids, or CNN Student News
- Attach a copy of the article to the report.
- Complete the following text dependent questions.

Article Title: ____________________________________________________________

Newspaper/Magazine: ____________________________________________________

Author/Editor: ___________________________________________________________ Topic: ______________________________

CCSS.ELA-Literacy.RI.7.2
Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.

What is the central idea of this article? (15-20 words)

______________________________________________________________________
______________________________________________________________________

List four new facts or ideas you learned from reading this article.

1. ________________________________________________________________

2. ________________________________________________________________

3. ________________________________________________________________

4. ________________________________________________________________

Key Ideas and Details
How has this new information changed your thinking about the subject? Use evidence from the text to support your response.

Claim/Opinion/Answer: ________________________________________________

______________________________________________________________________
______________________________________________________________________
Evidence:


Reasoning:


What is the most important point in this text? How do you know? Use specific text details to support your response.

Claim/Opinion/Answer:


Evidence:


Reasoning:


CCSS.ELA-Literacy.RI.7.6

Determine an author's... purpose in a text...

What is the author’s purpose for writing this text? Did the author write to persuade, inform, entertain, etc.? Use specific details to support your response.

Claim/Opinion/Answer:


Evidence:


Reasoning:


REFLECTION

Answer 1 of the following questions. Check one.

○ How does this connect to and/or affect you/your family?

○ How does this connect to and/or affect your community?

○ How does this connect to and/or affect the world?

Claim/Opinion/Answer:


Evidence:


Reasoning:
SUMMER PACKET

7th Grade
Summer Packet

Name: ______________________

Homeroom: ________________
6th to 7th Grade Math Summer Packet

In preparation for the 2019-2020 school year, students are provided with a summer pre-view packet. This packet focuses on some of the prerequisite concepts and skills necessary for student success in 7th grade.

While completing the pre-view packet, we recommend that students:

• Complete each problem, and show all steps used to arrive at the final answer.
• Show all work neatly in the actual packet, if it is printed.
(Additional lined paper may be added if necessary.)
• If packet is not printed, then make sure to number each page and problem as it appears on the packet. All work must be neatly presented.
• Box your final answers.
• Label answers when necessary.
• Do NOT use a calculator.
• Do not rush! Use time wisely.

If you are stuck on particular problems, check out of the math websites posted below. Parents may also be able to help. If you are still having difficulty, circle the problem number and be prepared to ask questions in class in September.

HELPFUL WEBSITES:
http://www.khanacademy.org/
http://www.aplusmath.com
http://funbrain.com
http://aaamath.com
http://math.com
Study Guide and Intervention
Order of Operations

Use the order of operations to evaluate numerical expressions.
1. Do all operations within grouping symbols first.
2. Evaluate all powers before other operations.
3. Multiply and divide in order from left to right.
4. Add and subtract in order from left to right.

**Example 1**
Evaluate $(10 - 2) - 4 \cdot 2$.

\[(10 - 2) - 4 \cdot 2 = 8 - 4 \cdot 2\] Subtract first since $10 - 2$ is in parentheses.
\[= 8 - 8\] Multiply 4 and 2.
\[= 0\] Subtract 8 from 8.

**Example 2**
Evaluate $8 + (1 + 5)^2 ÷ 4$.

\[8 + (1 + 5)^2 ÷ 4 = 8 + 6^2 ÷ 4\] First, add 1 and 5 inside the parentheses.
\[= 8 + 36 ÷ 4\] Find the value of $6^2$.
\[= 8 + 9\] Divide 36 by 4.
\[= 17\] Add 8 and 9.

**Exercises**

Evaluate each expression.
1. $(1 + 7) \times 3$
2. $28 - 4 \cdot 7$
3. $5 + 4 \cdot 3$
4. $(40 + 5) - 7 ÷ 2$
5. $35 ÷ 7(2)$
6. $3 \times 10^3$
7. $45 ÷ 5 + 36 ÷ 4$
8. $42 + 6 \times 2 - 9$
9. $2 \times 8 - 3^2 + 2$
10. $5 \times 2^2 + 32 ÷ 8$
11. $3 \times 6 - (9 - 8)^3$
12. $3.5 \times 10^2$
Study Guide and Intervention

Adding Integers

To add integers with the same sign, add their absolute values. Give the result the same sign as the integers.

**EXAMPLE 1** Find \(-3 + (-4)\).

\[-3 + (-4) = -7\] Add \(1\) to \(1\). Both numbers are negative, so the sum is negative.

To add integers with different signs, subtract their absolute values. Give the result the same sign as the integer with the greater absolute value.

**EXAMPLE 2** Find \(-16 + 12\).

\[-16 + 12 = -4\] Subtract \(12\) from \(16\). The sum is negative because \(16 > 12\).

**EXERCISES**

Add.

1. \(9 + 16\)  
2. \(-10 + (-10)\)  
3. \(18 + (-26)\)

4. \(-23 + (-15)\)  
5. \(-45 + 35\)  
6. \(39 + (-38)\)

7. \(-55 + 81\)  
8. \(-61 + (-39)\)  
9. \(-74 + 36\)

10. \(5 + (-4) + 8\)  
11. \(-3 + 10 + (-6)\)  
12. \(-13 + (-6) + (-12)\)

13. \(3 + (-10) + (-16) + 11\)  
14. \(-17 + 31 + (-14) + 26\)

Evaluate each expression if \(x = 4\) and \(y = -3\).

15. \(11 + y\)  
16. \(x + (-6)\)  
17. \(y + 2\)

18. \(|x + y|\)  
19. \(|x| + y\)  
20. \(x + |y|\)
Subtracting Integers

To subtract an integer, add its opposite or additive inverse.

**EXAMPLE 1** Find \(8 - 15\).

\[
8 - 15 = 8 + (-15) \quad \text{To subtract 15, add } -15.
\]

\[
= -7 \quad \text{Add.}
\]

**EXAMPLE 2** Find \(13 - (-22)\).

\[
13 - (-22) = 13 + 22 \quad \text{To subtract } -22, \text{ add } 22.
\]

\[
= 35 \quad \text{Add.}
\]

**EXERCISES**

Subtract.

1. \(-3 - 4\)
2. \(5 - (-2)\)
3. \(-10 - 8\)
4. \(-15 - (-12)\)
5. \(-23 - (-28)\)
6. \(16 - 9\)
7. \(9 - 16\)
8. \(-21 - 16\)
9. \(28 - 37\)
10. \(-34 - (-46)\)
11. \(65 - (-6)\)
12. \(19 - |29|\)

Evaluate each expression if \(a = -7\), \(b = -3\), and \(c = 5\).

13. \(a - 8\)
14. \(20 - b\)
15. \(a - c\)
16. \(c - b\)
17. \(b - a - c\)
18. \(c - b - a\)
Use the following rules to determine whether the product or quotient of two integers is positive or negative.

- The product of two integers with different signs is negative.
- The product of two integers with the same sign is positive.
- The quotient of two integers with different signs is negative.
- The quotient of two integers with the same sign is positive.

**Example 1** Find $7(-4)$.

$7(-4) = -28$ The factors have different signs. The product is negative.

**Example 2** Find $-5(-6)$.

$-5(-6) = 30$ The factors have the same sign. The product is positive.

**Example 3** Find $15 ÷ (-3)$.

$15 ÷ (-3) = -5$ The dividend and divisor have different signs. The quotient is negative.

**Example 4** Find $-54 ÷ (-6)$.

$-54 ÷ (-6) = 9$ The dividend and divisor have the same sign. The quotient is positive.

**Exercises**

Multiply or divide.

1. $8(-8)$
2. $-3(-7)$
3. $-9(4)$
4. $12(8)$
5. $33 ÷ (-3)$
6. $-25 ÷ 5$
7. $48 ÷ 4$
8. $-63 ÷ (-7)$
9. $(-4)^2$
10. $\frac{-75}{15}$
11. $-6(3)(-5)$
12. $\frac{-148}{-13}$

Evaluate each expression if $a = -1$, $b = 4$, and $c = -7$.

13. $3c + b$
14. $a(b + c)$
15. $c^2 - 5b$
16. $\frac{a - 6}{c}$
Study Guide and Intervention

Multiplying Rational Numbers

To multiply fractions, multiply the numerators and multiply the denominators.

Example 1
Find \(\frac{3}{8} \cdot \frac{4}{11}\). Write in simplest form.

\[
\frac{3}{8} \cdot \frac{4}{11} = \frac{3 \cdot 4}{2 \cdot 11}\\
= \frac{3 \cdot 1}{2 \cdot 11}\\
= \frac{3}{22}
\]

Divide 8 and 4 by their GCF, 4.
Multiply the numerators and denominators.
Simplify.

To multiply mixed numbers, first rewrite them as improper fractions.

Example 2
Find \(-2\frac{1}{3} \cdot 3\frac{3}{5}\). Write in simplest form.

\[
-2\frac{1}{3} \cdot 3\frac{3}{5} = \frac{-7 \cdot 18}{3 \cdot 5}\\
= \frac{-7 \cdot 6}{3 \cdot 5}\\
= \frac{-42}{15}\\
= -\frac{8\frac{2}{5}}{5}
\]

Divide 18 and 3 by their GCF, 3.
Multiply the numerators and denominators.
Simplify.
Write the result as a mixed number.

Exercises

Multiply. Write in simplest form.

1. \(\frac{2}{3} \cdot \frac{3}{5}\)
2. \(\frac{4}{7} \cdot \frac{3}{4}\)
3. \(-\frac{1}{2} \cdot \frac{7}{9}\)

4. \(\frac{9}{10} \cdot \frac{2}{3}\)
5. \(\frac{5}{8} \cdot \left(-\frac{4}{9}\right)\)
6. \(-\frac{4}{7} \cdot \left(-\frac{2}{3}\right)\)

7. \(2\frac{2}{5} \cdot \frac{1}{6}\)
8. \(-3\frac{1}{3} \cdot 1\frac{1}{2}\)
9. \(3\frac{3}{7} \cdot 2\frac{5}{9}\)

10. \(-1\frac{7}{8} \cdot \left(-2\frac{2}{5}\right)\)
11. \(-1\frac{3}{4} \cdot 2\frac{1}{5}\)
12. \(\frac{2}{3} \cdot \frac{3}{7}\)
Study Guide and Intervention
Dividing Rational Numbers

Two numbers whose product is 1 are multiplicative inverses, or reciprocals, of each other.

Example 1: Write the multiplicative inverse of $-2\frac{3}{4}$.

$$-2\frac{3}{4} = \frac{11}{4}$$

Write $-2\frac{3}{4}$ as an improper fraction.

Since $\frac{11}{4} \cdot \frac{4}{11} = 1$, the multiplicative inverse of $-2\frac{3}{4}$ is $-\frac{4}{11}$.

To divide by a fraction or mixed number, multiply by its multiplicative inverse.

Example 2: Find $\frac{3}{8} \div \frac{6}{7}$. Write in simplest form.

$$\frac{3}{8} \div \frac{6}{7} = \frac{3}{8} \cdot \frac{7}{6}$$

Multiply by the multiplicative inverse of $\frac{6}{7}$, which is $\frac{7}{6}$.

$$= \frac{1}{2} \cdot \frac{7}{6}$$

Divide 6 and 3 by their GCF, 3.

$$= \frac{7}{16}$$

Simplify.

Exercises

Write the multiplicative inverse of each number.

1. $\frac{3}{5}$
2. $-\frac{3}{9}$
3. $\frac{1}{10}$
4. $\frac{1}{6}$

5. $2\frac{3}{5}$
6. $-1\frac{2}{3}$
7. $-5\frac{2}{5}$
8. $7\frac{1}{4}$

Divide. Write in simplest form.

9. $\frac{1}{8} + \frac{1}{6}$
10. $\frac{2}{5} + \frac{4}{7}$

11. $-\frac{5}{6} + \frac{3}{4}$
12. $1\frac{1}{5} + 2\frac{1}{4}$

13. $3\frac{1}{7} + (-3\frac{2}{3})$
14. $-\frac{4}{9} \div 2$

15. $\frac{6}{11} + (-4)$
16. $5 \div 2\frac{1}{3}$
Study Guide and Intervention

Solving Addition and Subtraction Equations

You can use the following properties to solve addition and subtraction equations.

• Addition Property of Equality - If you add the same number to each side of an equation, the two sides remain equal.
• Subtraction Property of Equality - If you subtract the same number from each side of an equation, the two sides remain equal.

**Example 1** Solve $w + 19 = 45$. Check your solution.

\[
\begin{align*}
w + 19 &= 45 & \text{Write the equation.} \\
w &= 26 & \text{26} + 19 &= 45 & \text{Replace w with 26. Is this sentence true?} \\
& \text{Check} \\
26 + 19 &= 45 & \text{26} + 19 &= 45 & \text{Is this sentence true?}
\end{align*}
\]

**Example 2** Solve $h - 25 = -76$. Check your solution.

\[
\begin{align*}
h - 25 &= -76 & \text{Write the equation.} \\
h &= -51 & \text{-25} + 25 &= 0 & \text{-76} + 25 &= -51 & \text{h is by itself.} \\
& \text{Check} \\
-51 - 25 &= -76 & \text{-76} + 25 &= -51 & (-25) \text{ or -76}
\end{align*}
\]

**Exercises**

Solve each equation. Check your solution.

1. $s - 4 = 12$
2. $d + 2 = 21$
3. $h + 6 = 15$

4. $x + 5 = -8$
5. $b - 10 = -34$
6. $f - 22 = -6$

7. $17 + c = 41$
8. $v - 36 = 25$
9. $y - 29 = -51$

10. $19 = z - 32$
11. $13 + t = -29$
12. $55 = 39 + k$

13. $62 + b = 45$
14. $x - 39 = -65$
15. $-56 = -47 + n$
Study Guide and Intervention
Solving Multiplication and Division Equations

You can use the following properties to solve multiplication and division equations.
- *Multiplication Property of Equality* - If you multiply each side of an equation by the same number, the two sides remain equal.
- *Division Property of Equality* - If you divide each side of an equation by the same nonzero number, the two sides remain equal.

**EXAMPLE 1** Solve \(19w = 104\). Check your solution.

\[
19w = 114 \quad \text{Write the equation.}
\]

\[
\frac{19w}{19} = \frac{114}{19} \quad \text{Divide each side of the equation by 19.}
\]

\[
w = 6 \quad 19 \div 19 = 1 \text{ and } 114 \div 19 = 6.
\]

Check \(19w = 114\)

\[
19(6) = 114 \quad \text{Replace } w \text{ with 6.}
\]

\[
114 = 114 \checkmark \quad \text{This sentence is true.}
\]

**EXAMPLE 2** Solve \(\frac{d}{15} = -9\). Check your solution.

\[
\frac{d}{15} = -9
\]

\[
\frac{d}{15}(15) = -9(15) \quad \text{Multiply each side of the equation by 15.}
\]

\[
d = -135
\]

Check \(\frac{d}{15} = -9\)

\[
\frac{-135}{15} = -9 \quad \text{Replace } d \text{ with -135.}
\]

\[
-9 = -9 \checkmark \quad -135 \div 15 = -9
\]

**EXERCISES**

Solve each equation. Check your solution.

1. \(\frac{r}{5} = 6\)
2. \(2d = 12\)
3. \(7k = -21\)
4. \(-8x = 40\)
5. \(\frac{f}{8} = -6\)
6. \(\frac{x}{-10} = -7\)
7. \(17c = -68\)
8. \(\frac{h}{-11} = 12\)
9. \(29t = -145\)
10. \(125 = 5z\)
11. \(13t = -182\)
12. \(117 = -39k\)
Study Guide and Intervention
Solving Equations with Rational Numbers

The Addition, Subtraction, Multiplication, and Division Properties of Equality can be used to solve equations with rational numbers.

**Example 1** Solve \( x - 2.73 = 1.31 \). Check your solution.

\[
\begin{align*}
   x - 2.73 &= 1.31 & \text{Write the equation.} \\
   x - 2.73 + 2.73 &= 1.31 + 2.73 & \text{Add 2.73 to each side.} \\
   x &= 4.04 & \text{Simplify.} \\
   \text{Check} & \quad x - 2.73 = 1.31 & \text{Write the original equation.} \\
   4.04 - 2.73 & \neq 1.31 & \text{Replace } x \text{ with 4.04.} \\
   1.31 & \neq 1.31 & \text{Simplify.}
\end{align*}
\]

**Example 2** Solve \( \frac{4}{5}y = \frac{2}{3} \). Check your solution.

\[
\begin{align*}
   \frac{4}{5}y &= \frac{2}{3} & \text{Write the equation.} \\
   \frac{5}{4} \left( \frac{4}{5}y \right) &= \frac{5}{4} \left( \frac{2}{3} \right) & \text{Multiply each side by } \frac{5}{4}. \\
   y &= \frac{5}{6} & \text{Simplify.} \\
   \text{Check} & \quad \frac{4}{5}y = \frac{2}{3} & \text{Write the original equation.} \\
   \frac{4}{5} \left( \frac{5}{6} \right) \cdot \frac{2}{3} & \neq \frac{2}{3} & \text{Replace } y \text{ with } \frac{5}{6}. \\
   \frac{2}{3} & \neq \frac{2}{3} & \text{Simplify.}
\end{align*}
\]

**Exercises**

Solve each equation. Check your solution.

1. \( t + 1.32 = 3.48 \)  
2. \( b - 4.22 = 7.08 \)  
3. \( -8.07 = r - 4.48 \)

4. \( h + \frac{4}{9} = \frac{7}{9} \)  
5. \( -\frac{5}{8} = x - \frac{1}{4} \)  
6. \( -\frac{2}{3} + f = \frac{3}{5} \)

7. \( 3.2c = 9.6 \)  
8. \( -5.04 = 1.26d \)  
9. \( \frac{3}{5}x = 6 \)

10. \( -\frac{2}{3} = \frac{3}{4} \)  
11. \( \frac{w}{2.5} = 4.2 \)  
12. \( 1\frac{3}{4}r = 3\frac{5}{8} \)

Plotting a Hidden Message

Connect each series of points to reveal a hidden message.

(-12, 4) (-12, 0) (6, -5) (4, -5) (4, -1) (6, -1) (-3, 0) (-5, 0) (-5, 4) (-3, 4) (-6, 5) (-8, 5) (-8, 9) (-6, 9) (10, 2) (12, 2) (3, -8) (5, -8) (4, -3) (5, -3) (0, -6) (2, -6) (-2, 4) (2, 4) (0, 4) (4, 4) (-2, 0) (0, 0) (-6, -10) (-6, -6) (-5, -9) (-4, -6) (-4, -10) (-6, -1) (-8, -2) (-8, -4) (-6, -5) (-6, -3) (-7, -3) (7, 7) (8, 7) (-5, -5) (-5, -1) (-3, -1) (-3, -3) (-5, -3) (-11, 9) (-11, 5) (-10, 7) (-9, 5) (-9, 9) (9, 5) (7, 5) (7, 9) (9, 9) (1, 5) (1, 9) (3, 9) (3, 5) (1, 5) (3, 4) (1, 3) (1, 1) (3, 0) (3, 2) (2, 2) (4, 5) (4, 9) (5, 6) (6, 9) (6, 5) (-8, 7) (-7, 7) (-5, 9) (-5, 5) (-3, 5) (1, -6) (1, -10) (-3, -8) (-1, -8) (-4, -3) (-3, -5) (-2, -3) (0, -3) (-13, 4) (-11, 4) (1, -5) (1, -1) (2, -1) (3, -3) (2, -5) (1, -5) (-3, -10) (-3, -8) (-2, -6) (-1, -8) (-1, -10) (5, -10) (5, -6) (12, 0) (12, 4) (10, 0) (10, 4) (-1, 0) (-1, 4) (3, -10) (3, -6) (-5, 2) (-4, 2) (-2, -5) (-2, -3) (-1, -1) (0, -5) (0, 5) (-2, 5) (-2, 9) (0, 9) (-10, 0) (-10, 4) (-8, 4) (-8, 0) (-10, 0) (8, 4) (8, 0) (4, 2) (6, 2) (7, 4) (9, 4) (6, 0) (6, 4)
SUMMER PACKET

7th Grade
Summer Packet

Name: ______________________

Homeroom: ________________

Christman
Summer Math Skills for 7th Grade going into 8th Grade

Copy and complete the statement using <, >, or =.

1. 17.1 g __ 1.71 mg

2. 6.3 cm __ 63 mm

3. 1250 mL __ 12.5 kL

4. \[
\frac{7}{12} \quad \_ \quad \frac{2}{3}
\]

5. \[
\frac{7}{10} \quad \_ \quad \frac{11}{15}
\]

Copy and complete the statement.

6. 8 pt = __ c

7. 23 qt = __ gal __ qt

Evaluate the expression for the given value(s) of the variable(s).

8. \( m - 8 \) when \( m = 12 \)

9. \( 11y \) when \( y = 5 \)

10. \( a \div (b - 4) \) when \( a = 24 \) and \( b = 7 \)

11. Find the perimeter and the area of a rectangle that has a length of 7 feet and a width of 4 feet.

Evaluate the expression.

12. \( 23 - (9 - 5)^2 \)

13. \( \frac{17 - 8}{6 + 12} \)
14. \(52 \div (13 \times 2)\)

15. \(-5 \cdot 8 \cdot \left(\frac{1}{5}\right)\)

16. \(\frac{1}{3} (1.3) + \frac{1}{3} (1.7)\)

17. \(9^2 - 16 \times 3\)

18. \(9.83 + (8.2)(7.01)\)

Find the sum, difference, product, or quotient.

19. \(3.24 + 5.48\)

20. \(21.73 - 14.87\)

21. \(2.4 \times 0.125\)

22. \(15.3 \div 0.09\)

23. \(\frac{11}{16} \div \frac{3}{4}\)

24. \(7\frac{2}{5} - 4\frac{7}{10}\)

25. \(2\frac{1}{3} \cdot 3\frac{3}{4}\)

26. \(\frac{7}{12} \div \frac{14}{15}\)

27. \(-11 + (-17)\)

28. \(21 - 32\)
29. $10(-3)$

30. $-54 \div (-6)$

31. Evaluate the expression $\left(\frac{1}{2}\right)^2 \div \frac{2}{3}$.

    Write the number in scientific notation.

32. $61,500$

33. $17,540,000$

    Find the mean, median, mode(s), and range of the data.

34. $23, 19, 32, 28, 17, 21, 28$

35. $2.4, 1.7, 2.1, 1.5, 2.3, 2.1, 1.9, 1.2$

    Tell whether the number is prime or composite. Then write all the factors of the number.

36. $47$

37. $81$

    Use a factor tree to write the prime factorization of the numbers. Then find the GCF and the LCM of the numbers.

38. $45, 150$

39. $68, 102$

    Write the decimal as a fraction or mixed number.

40. $0.04$

41. $2.35$
Find the sum or difference.

42. \[8 \text{ ft 5 in.} \]
    \[+ 4 \text{ ft 9 in.}\]

43. \[6 \text{ c 4 fl oz} \]
    \[− 3 \text{ c 5 fl oz}\]

44. \[\frac{2}{3} + 4 \frac{1}{12}\]

45. \[6 \text{ ft 8 in.} \]
    \[+ 3 \text{ ft 5 in.}\]

Order the integers from least to greatest.

46. \[-6, 3, -4, 0, -11, 9\]

47. \[42, -36, 17, -28, 21, -16\]

48. Write the integer that represents a loss of 52 pounds. Then write the opposite of that integer.

49. Find the length, width, and area of the rectangle formed by the points \(R(-2, 3), S(4, 3), T(4, -1),\) and \(U(-2, -1)\).

Write the verbal sentence as an equation. Let \(x\) represent the number.

50. 7 less than a number is 15.

51. 3 times the sum of a number and 2 is 12.

Simplify the expression.

52. \[4x - 8 - 7x - 3\]
53. \(17t + 3(4t - 5)\)

54. \(5(3m + 1) - 8(2m + 3)\)

55. \(-3 - 4b + b - 8\)

Solve the equation. Check your solution.

56. \(w - 4 = -2\)

57. \(\frac{2}{3}x = -10\)

58. \(4y - 2 = 7\)

59. \(-9 = -9(2x - 3)\)

Solve the inequality.

60. \(15 > m + 8\)

61. \(-7x \leq 21\)

62. Write a function rule for the input-output table.

<table>
<thead>
<tr>
<th>Input, (x)</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output, (y)</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

63. Determine which package of laundry soap is the better buy: 65 ounces for $6.99 or 120 ounces for $12.99

Solve the proportion.

64. \(\frac{x}{15} = \frac{3}{7.5}\)

65. \(\frac{12}{16} = \frac{y}{12}\)

66. A map uses a scale of 1 in. : 25 mi. If the distance between two cities on the map is 3.5 inches, what is the actual distance between the cities?
Write the percent as a decimal or the decimal as a percent.

67. 31.5%

68. 210%

69. 0.0125

70. What number is 45% of 520?

71. 75 is what percent of 30?

Identify the percent of change as an increase or a decrease. Then find the percent of change.

72. Original: 60  
   New: 45

73. Original: 75  
   New: 90

74. A store has a pair of boots that originally cost $56 marked down 25%. How much will the boots cost on sale?

75. You deposit $1200 in an account. The annual interest rate is 3%. How long will it take you to earn $108 in simple interest?

For the given angle measure, find the measure of a supplementary angle and the measure of a complementary angle, if possible.

76. 27°

77. 105°

78. 18°
GRADE 7

SCIENCE PACKET

PACKET MUST BE RETURNED ON THE FIRST DAY OF SCHOOL!  SEPTEMBER 3RD, 2019

**NO EXCUSES**

NAME: ________________________________
POSTCARD DIRECTIONS

Did you have a scientific summer? The answer may surprise you. Most likely, you did not build a solar panel, or go digging for fossils. However, you did something over the summer that relates to science. How do I know this? Because... science is everywhere! Science doesn’t just live in a laboratory. You are surrounded by science in your everyday life, all the time.

For this assignment, you will create a postcard to your classmates which describes one activity you did over the summer and how science was involved. The requirements for this assignment are listed below.

Your postcard must include:

<table>
<thead>
<tr>
<th>1. An illustration or real picture of the summer activity</th>
<th>2. A two paragraph written response</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔️ Color required</td>
<td>1\textsuperscript{st} Paragraph – a detailed description of one activity you did over the summer</td>
</tr>
<tr>
<td>✔️ Add detail to illustrated pictures</td>
<td>2\textsuperscript{nd} Paragraph – a full scientific explanation telling the reader how this activity relates to science + key vocabulary words explained</td>
</tr>
<tr>
<td>✔️ Sorry, no stick figures are allowed. Do your best to draw out the scene</td>
<td>-Assume the reader has no prior knowledge of the terms</td>
</tr>
</tbody>
</table>

Remember:

★ This is a letter format, so you must include a salutation and a closing.
★ Proper spelling and grammar are required.
★ You will be reading your postcard to your fellow classmates (in small groups). So, please create a thoughtful postcard worthy of sharing.

Struggling with ideas on what to write about? Here are just a few of the endless possibilities:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Branch of Science</th>
<th>Example of Keywords to Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooking</td>
<td>Chemistry</td>
<td>chemical reaction, chemical change, energy, heat, fire</td>
</tr>
<tr>
<td>Hiking/Camping</td>
<td>Ecology</td>
<td>food chain, heterotroph, autotroph, producer, consumer, decomposer, predator, prey</td>
</tr>
<tr>
<td>Amusement Park</td>
<td>Physics</td>
<td>force, energy (potential and kinetic), gravity, inertia</td>
</tr>
<tr>
<td>Watching TV</td>
<td>Physics</td>
<td>electromagnetic waves, electricity, pixels</td>
</tr>
<tr>
<td>Got a tan?</td>
<td>Biology</td>
<td>skin, UV radiation, pigment, melanin</td>
</tr>
<tr>
<td>Star Gazing</td>
<td>Astronomy</td>
<td>star, planet, galaxy, nuclear fusion</td>
</tr>
<tr>
<td>Gardening</td>
<td>Botany</td>
<td>photosynthesis, soil, flower, fruit, xylem, phloem</td>
</tr>
</tbody>
</table>

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### Postcard Grading Rubric

<table>
<thead>
<tr>
<th>Category</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description of Summer Activity</strong></td>
<td>You have sufficient detail. The reader can clearly visualize the activity.</td>
<td>Your description includes detail, but needs to be more specific.</td>
<td>Your description includes some detail, but not enough to easily visualize the activity.</td>
<td>Your description is extremely lacking. The reader only gets a vague idea of what occurred.</td>
</tr>
<tr>
<td><strong>Science Vocabulary</strong></td>
<td>Relevant vocabulary is present/explained. It is clear that you thoroughly researched the topic.</td>
<td>Relevant vocabulary is present/explained. The explanation may be somewhat lacking in clarity.</td>
<td>Relevant vocabulary is present, but some vocabulary terms are insufficiently explained.</td>
<td>Very little (if any) vocabulary words are present/explained.</td>
</tr>
<tr>
<td><strong>Science Explanation</strong></td>
<td>Your postcard demonstrates a thorough understanding of the science concepts.</td>
<td>Your postcard demonstrates an above average knowledge of the science concepts.</td>
<td>Your postcard demonstrates a partial understanding of the science concepts.</td>
<td>There is little, if any, explanation of the science concepts behind the activity.</td>
</tr>
<tr>
<td><strong>Illustration or Real Photo of Event</strong></td>
<td>Your illustrations are related to the topic. Your drawing detail and color application is exemplary.</td>
<td>Your illustrations are related to the topic. Your drawing detail and color application is above average.</td>
<td>Your illustrations are related to the topic. However, there is a lack of detail and/or color to your pictures.</td>
<td>Your illustrations are extremely incomplete.</td>
</tr>
<tr>
<td><strong>Grammar, Spelling, Mechanics</strong></td>
<td>You have 0-1 errors in grammar, spelling, or mechanics.</td>
<td>You have 2-3 errors in grammar, spelling, and/or mechanics.</td>
<td>You have 4-5 S errors in grammar, spelling, and/or mechanics.</td>
<td>You have 6 or more errors in grammar, spelling, and/or mechanics.</td>
</tr>
</tbody>
</table>

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