Incoming Eighth Grade Summer Packet

Please complete the following packet. It is due the first Friday after school starts for a minor test grade in ELA and math for the first quarter.

Please remember that your child will be in TWO high school honors classes this year. The grade that your child earns in these courses will be on his/her official high school transcript, which will be submitted for college applications and scholarships when the time comes. In addition, eight graders have to take and pass the state mandated end-of-course LEAP test in Algebra I and English I in May in order to get credit for the course.

Please note that the work in this packet is rigorous because the expectation for a high school HONORS course is rigorous. At the start of the school year, each child and family will sign the district contract for students who are taking honors courses as 8th graders.

English language arts:

- Read *Fire From the Rock* by Sharon M. Draper and complete the response notes as you read.
- Complete the Summative Assessment Writing Assignment

Math:

Complete the math practice sheets. It is suggested that students complete one to two sheets per week for the eight weeks of summer.

In addition, students at this stage in mathematics development should know all addition, subtraction, multiplication, and division facts. Please purchase or make flash cards for 0s, 1s, 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s,10s, 11s, and 12s. These facts should be memorized by the beginning of the school year. During the first week of school, your child will be given a fluency assessment on these facts that will count as a minor test grade for the first quarter.

Please review the handbook policy for submitting late test grade assignments.

Rising 8th Graders Summer Work

1.) Read *Fire from the Rock* by Sharon M. Draper
   - As you read, complete **one response note per chapter**. The response should be written in complete sentences and reflect your analysis of the text. IT IS NOT A SUMMARY. (See The Three Ways of Thinking handout.)

2.) Complete the Summative Assessment Writing Assignment.

Fire from the Rock

By Sharon M. Draper

Summative Assessment

Task: **Write a persuasive paper that argues ONE of the following points:**

"Individuals who are full of hate and bigotry are the source of much unhappiness in the world."
"All human beings are given strong spirits in order to withstand the difficulties of life."
"Individuals who suffer discrimination become stronger and can help others as a result.
OR
"Individuals who suffer discrimination become weaker and can be destroyed as a result.

Whether you agree or disagree, your paper should address only one side of the issue. Use evidence from the novel to support your points.

Your writing should include a thesis statement (claim with three reasons) and at least three body paragraphs. You should include a minimum of four direct quotes and two paraphrased quotes to support your argument and a counter argument.

RESPONSE NOTES

Objective: Given *The Three Ways of Thinking* strategy, students will strengthen their response habits by commenting on text with literal, inferential and critical responses.

Rationale: Good readers are aware of their own thinking process (metacognition) and apply skills to their reading.

The Three Ways of Thinking

Literal

Inferential

Critical

Literal

Your thought was stated directly in the text, like a fact from the text. (Summary)

Inferential

Your thought was not stated directly, but there is evidence for it in the text; it is hinted at, suggested, or implied.

Critical

Your original thought, opinion, connection or critical question related to the text.

Ask yourself:

- What do you think?
- What do you notice?
- What do you remember?
- What stands out to you?

Remember: 1.) There is no one "right answer"!
2.) Your real thoughts are important!



Response notes are a way of talking back to the text.

HOW TO USE STICKIES: Read your text. Jot down thoughts that answer some of the following questions.

- ❑ What do you think?
- ❑ What do you notice?
- ❑ What do you remember?
- ❑ What stands out to you?

Write your ideas on a response note. One idea per note.

Suggestions for Sticky Notes	Sentence Frames (use as needed)
• Opinions about characters • Something about the character's personality • Questions about characters • Important things from the story • Things you're confused about • Things you wonder about • Connections to your life/things you relate to • Connections to other books or to movies • What you think might happen • What you hope happens • Emotions about the story • Thoughts about the author • Words you don't know • Something you like in the story • Something you don't like	• _____ really stands out to me because _____. • This reminds me of _____ because _____. • One connection I can make is __ because _____. • I am confused about _____ because _____.

More sophisticated responses:

- Apply literary terms to your observations when relevant.
  - For example, use words like *conflict, protagonist,* or *plot development.*
- Pay attention to the language of the text.
  - For example, how does the author create *voice* for the character.

Fire from the Rock

By Sharon M. Draper

Summative Assessment

Task: **Write a persuasive paper that argues ONE of the following points:**

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"All human beings are given strong spirits in order to withstand the difficulties of life."
"Individuals who suffer discrimination become stronger and can help others as a result. OR
"Individuals who suffer discrimination become weaker and can be destroyed as a result.

Whether you agree or disagree, your paper should address only one side of the issue. Use specifics from the novel to support your points.

Your writing should include a minimum of five paragraphs and should have a minimum of four direct quotes and two paraphrased quotes to support your argument. You should also include a counter argument.

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***Fire from the Rock* Response Notes**

Each note should be a THOROUGH response that includes a claim (statement about what you have read) reference to page number (evidence) and reasoning. See the "Three Ways of Thinking" handout for instructions.

Section	Response
1 p. 1-15	
2 p. 15-32	
3 p. 32-40	
4 p. 40-53	
5 p. 54-70	
6 p. 71-84	
7 p. 84-96	
8 p. 96-110	
9 p. 110-123	
10 p. 123-138	
11 p. 138-152	
12 p. 152-165	
13 p. 166-179	
14 p. 180-192	
15	

p. 192-202	
16 p. 202-213	
17 p. 213-225	

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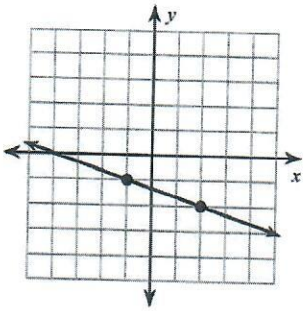
Slope

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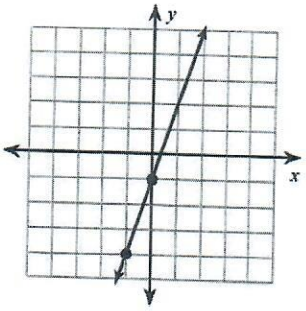
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Find the slope of each line.

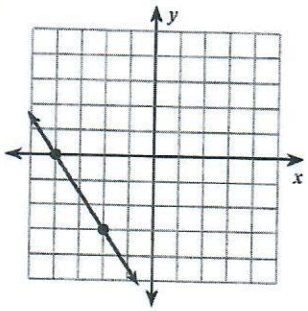
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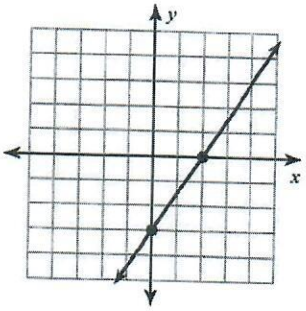
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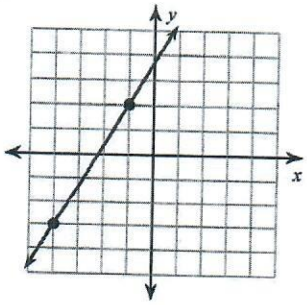
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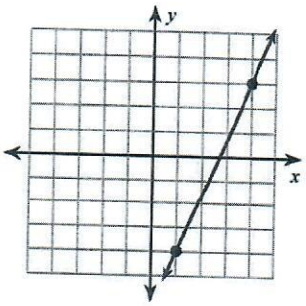
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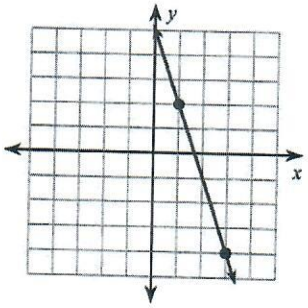
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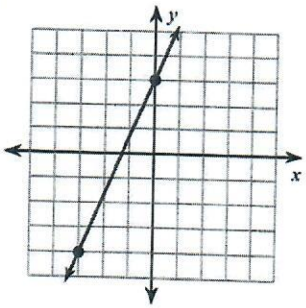
6)



7)



8)



Find the slope of the line through each pair of points.

9) $(8, 10), (-7, 14)$

10) $(-3, 1), (-17, 2)$

11) $(-20, -4), (-12, -10)$

12) $(-12, -5), (0, -8)$

13) $(-19, -6), (15, 16)$

14) $(-6, 9), (7, -9)$

15) $(-18, -20), (-18, -15)$

16) $(12, -18), (11, 12)$

Find the slope of each line.

17) $y = -5x - 1$

18) $y = \frac{1}{3}x - 4$

19) $y = -\frac{1}{5}x - 4$

20) $x = 1$

21) $y = \frac{1}{4}x + 1$

22) $y = -\frac{2}{3}x - 1$

23) $y = -x + 2$

24) $y = -x - 1$

25) $2x + 3y = 9$

26) $5x + 2y = 6$

Name : _____ Score : _____

Teacher : _____ Date : _____

Find the Slope and Y-intercept for Each Equation

1) $2x + 9y = 18$ slope = _____ y-intercept = _____

2) $-2x + 3y = 21$ slope = _____ y-intercept = _____

3) $y = -3x - 15$ slope = _____ y-intercept = _____

4) $y = -\frac{7}{6}x + 10$ slope = _____ y-intercept = _____

5) $-x + 3y - 6$ slope = _____ y-intercept = _____

6) $-6x + 5y = -10$ slope = _____ y-intercept = _____

7) $y = -3x - 3$ slope = _____ y-intercept = _____

8) $y = -x + 2$ slope = _____ y-intercept = _____

9) $y = -\frac{1}{3}x + 1$ slope = _____ y-intercept = _____

10) $-6x + 4y = -12$ slope = _____ y-intercept = _____



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Name_____

Date_____ Period____

Solving Multi-Step Equations

Solve each equation.

1) $4n - 2n = 4$

2) $-12 = 2 + 5v + 2v$

3) $3 = x + 3 - 5x$

4) $x + 3 - 3 = -6$

5) $-12 = 3 - 2k - 3k$

6) $-1 = -3r + 2r$

7) $6 = -3(x + 2)$

8) $-3(4r - 8) = -36$

9) $24 = 6(-x - 3)$

10) $75 = 3(-6n - 5)$

Adding and Subtracting Integers

Use these rules to add and subtract integers.

Adding Integers

Same Sign

- The sum of two positive integers is positive.
  Example: $6 + 16 = 22$
- The sum of two negative integers is negative.
  Example: $-9 + (-3) = -12$

Different Signs

- First find the absolute values of each number.
- Then subtract the lesser absolute value from the greater.
- The sum has the sign of the integer with the greater absolute value.
  Example: $-10 + 9 = -1$

Subtracting Integers

- To subtract integers, add the opposite.
- Then following the rules for adding integers.
  Example: $6 - (-3) = 6 + 3 = 9$

Find each sum.

1. $8 + (-2)$ _____
2. $-9 + 4$ _____
3. $3 + (-2)$ _____
4. $-1 + 11$ _____
5. $12 + 13$ _____
6. $-9 + 5$ _____
7. $7 + 2$ _____
8. $-1 + (-7)$ _____
9. $-3 + 0$ _____
10. $-1 + (-1)$ _____
11. $6 + 5$ _____
12. $3 - (-2)$ _____

Complete.

13. $-3 - 4$ Change to addition: $-3 +$ _____ = _____
14. $5 - 2$ Change to addition: $5 +$ _____ = _____
15. $-6 - (-10)$ Change to addition: $-6 +$ _____ = _____

Find each difference.

16. $4 - 5$ _____
17. $-5 - 4$ _____
18. $-8 - (-7)$ _____
19. $19 - (-6)$ _____
20. $-10 - 12$ _____
21. $-12 - 10$ _____

Adding and Subtracting Decimals and Fractions

Use these rules to add and subtract rational numbers.

Adding and Subtracting Integers

Same Sign

- The sum of two positive rational numbers is positive.
  Example: $15.6 + 4.5 = 20.1$
  Example: $\frac{2}{9} + \frac{8}{9} = 1\frac{1}{9}$
- The sum of two negative rational numbers is negative.
  Example: $-3.42 + (-5.74) = -9.16$
  Example: $-1\frac{3}{4} + \left(-4\frac{3}{4}\right) = -6\frac{1}{2}$

Different Signs

- First find the absolute values of each addend.
- Then subtract the lesser absolute value from the greater.
- The sum has the sign of the addend with the greater absolute value.
  Example: $-25.8 + 17.3 = -8.5$
  Example: $-2\frac{1}{2} + 1\frac{1}{4} = -1\frac{1}{4}$

Subtracting Rational Numbers

- To subtract rational numbers, add the opposite.
- Then following the rules for adding rational numbers.
  Example: $-9.25 - (-3.4) = -9.25 + 3.4 = -5.85$
  Example: $4 - \left(-2\frac{3}{10}\right) = 4 + \left(2\frac{3}{10}\right) = 6\frac{3}{10}$

Find each sum.

1. $43.2 + 26.7$

2. $-81.22 + 14.9$

3. $-4.8 + (-53.5)$

4. $2\frac{5}{9} + 3\frac{4}{9}$

5. $-2\frac{3}{5} + 1\frac{1}{5}$

6. $-6\frac{1}{3} + \left(-7\frac{1}{3}\right)$

Find each difference.

7. $15.64 - 8.5$

8. $-0.392 - 0.26$

9. $-5.4 - (-1.6)$

10. $6 - 5\frac{5}{6}$

11. $-4\frac{3}{4} - 2\frac{1}{4}$

12. $-7\frac{4}{5} - \left(-3\frac{3}{5}\right)$

Multiplying and Dividing Integers

To multiply integers:

- If the signs are alike, the product is positive.

$$2 \cdot 3 = 6$$
$$-2 \cdot -3 = 6$$

- If the signs are different, the product is negative.

$$2 \cdot -3 = -6$$
$$-2 \cdot 3 = -6$$

To divide integers:

- If the signs are alike, the quotient is positive.

$$6 \div 3 = 2$$
$$-6 \div -3 = 2$$

- If the signs are different, the quotient is negative.

$$6 \div -3 = -2$$
$$-6 \div 3 = -2$$

Tell whether each product or quotient will be *positive* or *negative*.

7. $4 \cdot 7$ _____
8. $-4 \cdot 7$ _____
9. $-4 \cdot -7$ _____
10. $4 \cdot -7$ _____
11. $10 \cdot -4$ _____
12. $-25 \div 5$ _____
13. $-2 \cdot -2$ _____
14. $100 \div 10$ _____

Multiplying Decimals and Fractions

Remember these rules when multiplying rational numbers.

1. When both factors are positive, the product is positive.

   Multiply: $\left(2\frac{2}{3}\right)\left(1\frac{5}{8}\right) = \left(\frac{8}{3}\right)\left(\frac{13}{8}\right) = \frac{104}{24} = 4\frac{1}{3}$

2. When both factors are negative, the product is positive.

   Multiply: $(-4.35)(-2.44) = 10.614$

3. When both factors have different signs, the product is negative.

   Multiply: $-\frac{3}{4} \times \frac{2}{5} = \frac{-3 \times 2}{4 \times 5} = \frac{-6}{20} = -\frac{6}{20} = -\frac{3}{10}$

Find each product. Write the product in simplest form.

1. 2.8×0.05 _____
2. $\frac{5}{8} \cdot \frac{2}{5}$ _____
3. $1.45 \cdot 0.7$ _____
4. $2\frac{3}{5} \cdot \frac{7}{8}$ _____
5. $(-2.07)(-4.9)$ _____
6. $\frac{5}{12} \cdot \left(-\frac{3}{10}\right)$ _____

Dividing Decimals and Fractions

Divide: $38.25 \div 1.5$.		Divide: $3\frac{3}{4} \div 1\frac{2}{5}$.	
1. Rewrite the problem with a whole number divisor.	$1.5\overline{)38.25}$ ↓	1. Rewrite mixed numbers as improper fractions as needed.	$\frac{15}{4} \div \frac{7}{5}$
2. Place the decimal point in the quotient.	$1.5.\overline{)38.2.5}$ ∪ ∪ ↑ ↑ **Move 1 place each.**	2. Multiply by the reciprocal of the divisor.	$\frac{15}{4} \cdot \frac{5}{7}$
3. Divide. Then check.	25.5 $15\overline{)382.5}$ -30 82 -75 75 -75 0 $25.5 \times 15 = 382.5$ ✔ **Multiply to check.**	3. Multiply numerators. Multiply denominators.	$\frac{15 \cdot 5}{4 \cdot 7} = \frac{75}{28}$
		4. Simplify.	$\frac{75}{28} = 2\frac{19}{28}$

Find each quotient. Simplify your answers.

1. $1\frac{5}{8} \div \frac{5}{8}$ _____

2. $-43.55 \div 6.5$ _____

3. $-\frac{2}{5} \div \frac{4}{25}$ _____

Simplifying Expressions

To *simplify* an expression, combine its like terms.

Perform as many of its operations as possible.

Simplify: $6m + 10 - 2m + 4$

$= (6m - 2m) + (10 + 4)$

$= 4m + 14$

Simplify: $3(c - 6)$

$= 3c - 3(6)$

$= 3c - 18$

Simplify each expression.

1. $7(6 + p) =$ _____

2. $6n + 2(4n + 5) =$ _____

3. $3(0.3x + 0.1) + 0.2x =$ _____

4. $-6x - 8 + 3x - 14 =$ _____

Solving Two-Step Equations

Step 1

Subtract the extra marbles from both sides.

$$2x + 3 - 3 = 7 - 3$$
$$2x = 4$$

Step 2

Divide the number of marbles by 2, the number of boxes.

$$\frac{2x}{2} = \frac{4}{2}$$
$$x = 2$$

Complete to solve each equation.

3. $5x + 7 = 2$

$5x + 7 - _____ = 2 - _____$

$\frac{5x}{\square} = \frac{-5}{\square}$

$x = _____$

4. $2x - 1 = 9$

$2x - 1 + _____ = 9 + _____$

$\frac{2x}{\square} = \frac{10}{\square}$

$x = _____$

Solve each equation.

5. $4x + 7 = 15$ _____

6. $3b - 5 = 13$ _____

7. $5t - 2 = -17$ _____

Distributive Property

You can use the Distributive Property to solve equations.

Solve $4(x - 7) = 12$.

$4(x) + 4(-7) = 12$ ← **Use the Distributive Property.**
$4x - 28 = 12$ ← **Simplify.**
$4x = 40$ ← **Add 28 to each side.**
$x = 10$ ← **Divide each side by 4.**

Check $4(10) + 4(-7) = 40 + (-28)$

$4(10) + 4(-7) = 12$

Solve these equations.

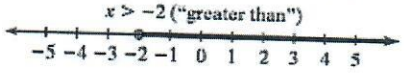
1. $-4(3.1 + x) = -38$ _____

2. $6(x - 7) = 30$ _____

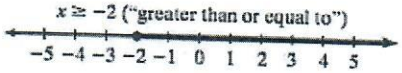
Inequalities

The **solutions of an inequality** are the values that make the inequality true. They can be graphed on a number line. Use a closed circle (●) for ≤ and ≥ and an open circle (○) for > and <. For example:

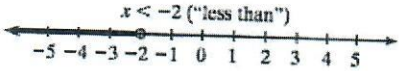
$x > -2$ ("greater than")



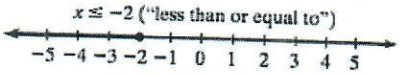
$x \geq -2$ ("greater than or equal to")



$x < -2$ ("less than")

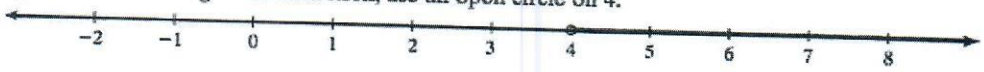


$x \leq -2$ ("less than or equal to")



Graph the inequality $x > 4$.

The inequality is read as "x is greater than 4." Since all numbers to the right of 4 are greater than 4, you can draw an arrow from 4 to the right. Since 4 is not greater than itself, use an open circle on 4.



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1. **Graph the inequality $x \leq -3$.**

   a. Write the inequality in words.

   b. Will the circle at −3 be open or closed?

   c. Graph the solution.



2. **Graph the inequality $x < 3$.**

   a. Write the inequality in words.

   b. Will the circle at 3 be open or closed?

   c. Graph the solution.



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Solving Inequalities with Addition and Subtraction

To solve an inequality you can add the same number to or subtract it from each side of the inequality.

Solve $x + 5 \geq 9$. Graph the solution.

$x + 5 \geq 9$

$x + 5 - 5 \geq 9 - 5$ Subtract 5 from each side.

$x \geq 4$ Simplify.

Graph:



Solve $y - 3 < 2$. Graph the solution.

$y - 3 < 2$

$y - 3 + 3 < 2 + 3$ Add 3 to each side.

$y < 5$ Simplify.

Graph:



Solve each inequality. Graph the solution.

1. $2 + a > 6$ _____



2. $-4 + w \leq 0$ _____



3. $3 + a \geq 8$ _____



4. $w + 1 \leq 4$ _____



Solving Inequalities with Multiplication and Division

To solve an inequality you can multiply or divide each side by the same number. However, if the number is negative, you must also reverse the direction of the inequality sign.

Solve $-4y \geq 16$. Graph the solution.

$-4y \geq 16$

$\frac{-4y}{-4} \leq \frac{16}{-4}$ Divide each side by -4. Reverse the direction of the inequality symbol.

$y \leq -4$ Simplify.

Graph:



Solve $\frac{w}{3} > 2$. Graph the solution.

$\frac{w}{3} > 2$

$(3)\frac{w}{3} > 2(3)$ Multiply each side by 3.

$w > 6$ Simplify.

Graph:



Solve each inequality. Graph the solution.

1. $2a > 10$ _____



2. $-4w < 16$ _____



3. $\frac{r}{2} \geq -2$ _____



4. $\frac{a}{3} < 1$ _____

