St. Katharine of Siena School

8th Grade Summer Reading List

2018~2019

The goal of summer reading is to further a love of reading among students. Additionally, summer reading can provide your teachers with an opportunity to get to know you as a reader and a writer.

All students - there will be one mandatory book, and one book of your choosing that must be read by each student. Additionally, there will be an assignment that will need to be completed by all students for each required reading.

The **entire school** is doing a non-fiction all school SKS Book Club of *The Boy Who Harnessed the Wind* by William Kankwamba. Please see the attached non-fiction assignment.

8th grade Girls..... mandatory reading: *I Will Always Write Back*
By: Caitlin Alifirenka and Martin Ganda

Dear Parents,

We wanted to make you aware that there are two very brief references in I Will Always Write Back with reference to alcohol (a keg party) and drugs (marijuana specifically). While we wish these references were not in the book, we still believe the book is a great story and has a tremendous message and lessons of value for our students. We have a contact at Villanova and may be able to make a connection with the family in this book to talk to our students. If for any reason you find these references offensive or inappropriate, we'd ask your child to choose another book and to let Mr. DiClemente and me know your choice. It should not be a book they have already read previously.
Thanks,
Bud Tosti

8th grade Boys..... mandatory reading: Season of Life (selected by Mr. Tosti) By: Jeffrey Marx
Please see the assignment for the 8th grade boys that needs to be submitted to Mr. Tosti by 8/22/18 via email.

Reading selection of your choice. (choose one)

The Diary of a Young Girl by: Anne Frank
Leap of Faith by: Kimberly Brubaker
The Book Thief by: Marcus Zusak
A Tree Grows in Brooklyn by: Betty Smith
Fahrenheit 451 by: Ray Bradbury
Seabiscuit: An American Legend by: Laura Hillenbrand
The Boys in the Boat by: Daniel James Brown
The Old Man and the Sea by: Ernest Hemingway
Behind the Beautiful Forevers by: Katherine Boo
Counting by 7's By: Holly Goldberg Sloan

Assignment for Books #1 and #2:

Create a Google Doc for two journal entries (a half page each), completed for each book. You will share the Google Doc with me through my email at.... bdiclemente@sksschool.org . I would also like you to bring a hard copy of your completed assignments to school with you on the first day of school.

Below are the journal writing prompts you can choose from:

● Make a connection (text to self, text-to-world). Explain the context (what is happening in the book) of the text and describe the connection you have made.
● Choose a significant passage that reveals the book's theme, or central message. Record the passage and page number, and explain how it relates to the theme.
● What is the main problem/obstacle/mystery that the characters/people must overcome/solve? How was the problem resolved? Was this a satisfactory conclusion?
● Do you think the characters/people and their problems/decisions/relationships are believable/realistic? Why or why not?
● What was the most surprising, interesting or useful piece of information you learned through reading your book?
● From whose point of view is the story told? What other voices could tell the story? Be sure to explain how the story would be different from this other, new perspective.

Note: You should have a total of two completed assignments (hard copies) when you return to school. Additionally, you should share with me (through Google) a copy of your completed entries to bdiclemente@sksschool.org .
The point of these journals is not to summarize plot, but rather to write critical comments and reflections. This will allow me to learn a little about you for the coming year.
I am looking forward to reading your reflections. Thank you for doing your best work. I am wishing you an awesome Summer Vacation! Happy Reading.....I will see you in September. Have fun and be safe.

Sincerely,

Mr. Bill DiClemente

Please see below for Mr. Tosti's assignment

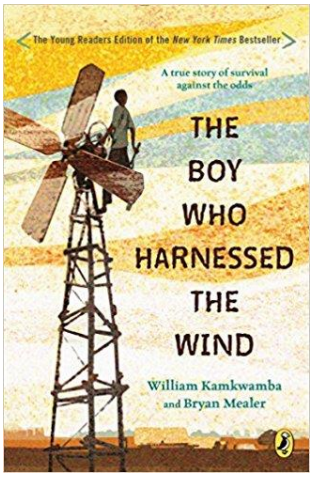
Summer Reading Assignment for 8th Grade Boys

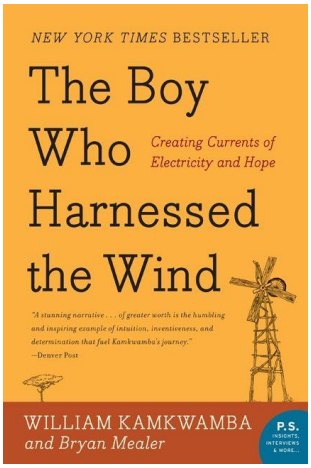
Season of Life by Jeffrey Marx

Directions: Answer these questions and submit them to Mr. Tosti by email to: btosti@sksschool.org by 8/22/18. Answer each question in paragraph form and be explicit, detailed, and in depth. These are not one sentence answers. You will be marked on the content and depth of your answer, and I do expect your grammar (punctuation and spelling to be correct as well.)

1. What things in his life had the greatest effect on Joe Ehrman and why?
2. What are your thoughts on the 'coaching" approach Coach Ermann and Coach Biff took towards the Gilman Football team?
3. After reading the book what are three core values that you take with you from reading this book? Cite examples of these core values from the book and cite examples in your own life in which you can incorporate these values.
4. Look at the poem by Edwin Markham early in the book. Interpret what the poem means to you.
5. How has reading this book possibly changed your perceptions of what it means to be or to become a "real man?" Discuss the notion of "false masculinity" and what it means to you.
6. Coach Joe called empathy 'the single greatest trait that separates us from animals." (p. 97). Explain this quote in your own words. What does it mean to show empathy (do not give a dictionary definition.) Cite one example from the book and one from your own life.
7. What does it mean to be a "man built for others?" Discuss and comment on Coach Joe's four main masculinity traits that form 'the moral and ethical foundation for men and from his code of conduct for all.
8. Why did you or why didn't you like this book? What influence (if any) did it have on your perspective as a maturing young Catholic man? How can this book influence your relationships with: Your entire family? Your fellow male classmates/teammates/ friends? Your fellow female classmates/friends? Explain.

SKS Nonfiction Book Club
Summer 2018





<u>Required Reading</u>:
The Boy Who Harnessed the Wind
(Young Adult or Adult Edition)
by William Kankwamba

<u>Assignment</u>: Entering 8th Grade

1. Read *The Boy Who Harnessed the Wind* for pleasure.
2. After reading, write 5 discussion questions that you will share with your class during our September Book Club Meeting.
3. Use the attached sheet to write all questions.
4. Remember your job is to create a list of questions that will help to discuss the book you are reading together. Create open-ended questions that will challenge your group to think. The best discussion questions usually come from your own thoughts, feelings, and concerns as you read.
5. Use following prompts as needed to create questions:

    - Why…
    - How would you explain…
    - What is the importance of…
    - What is the meaning of…
    - Compare…
    - Contrast…
    - What is the difference between…
    - What is the similarity between…
    - What are the causes/results of….
    - What connection is there between…
    - What is meant by…
    - Explain how…

Name _____

The Boy Who Harnessed the Wind
Discussion Questions

Question #1

_____

_____

_____

Question #2

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Question #3

_____

_____

_____

Question #4

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Question #5

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NAME: _____

INCOMING 8TH GRADE SUMMER MATH

***Please be sure to show all of your work in this packet but also make sure to fill in the answer sheet. This packet will be due the first week of school and will be graded. Each topic begins with some examples and directions on how to solve those particular problems.**

Unit: Knowledge of Algebra, Patterns and Functions
Objective: Write an algebraic expression to represent unknown quantities with one unknown and 1 or 2 operations.

Examples:

The tables below show phrases written as mathematical expressions.

Phrases	Expression
9 more than a number The sum of a 9 and a number A number plus 9 A number increased by 9 The total of x and 9	X + 9
6 multiplied by g 6 times a number The product of g and 6	6g
4 subtracted from a number A number minus 4 4 less than a number A number decreased by 4 The difference of h and 4	H - 4
A number divided by 5 The quotient of t and 5 Divide a number by 5	T ÷ 5

***Write each phrase as an algebraic expression.**

1) **7 less than m**

2) **Let t = the number of tomatoes Tye planted last year. This year she planted 3 times as many. Write an algebraic expression to show how many tomatoes Tye planted this year.**

3) **Last week Jason sold x number of hot dogs at the football game. This week he sold twice as many as last week, and then he sold 10 more. Write an expression to show how many hot dogs Jason sold this week.**

Unit: Knowledge of Algebra, Patterns and Functions
Objective: Evaluate an algebraic expression using one unknown and no more than 2 operations.

Examples:

#1 Evaluate $6x - 7$ if $x = 8$	#2 Evaluate $5m - 15$ if $m = 6$
$6x - 7 = 6(8) - 7$ replace x with 8 $= 48 - 7$ use order of operations $= 41$ subtract 7 from 48	$5m - 15 = 5(6) - 15$ replace m with 6 $= 30 - 15$ use order of operations $= 15$ subtract 15 from 30

4) Evaluate $6 + 3b$ if $b = 7$

5) Evaluate $5(6) - c$ if $c = 7$

6) Evaluate $6a^2$ if $a = 4$

Unit: Knowledge of Algebra, Patterns and Functions
Objective: Evaluate numeric expressions using order of operations with no more than 4 operations.

Examples:

#1 Evaluate $14 + 3(7 - 2) - 2 \cdot 5$	#2 Evaluate $8 + (1 + 5)^2 \div 4$
$14 + 3(7 - 2) - 2 \cdot 5$ $= 14 + 3(5) - 2 \cdot 5$ parentheses first $= 14 + 15 - 2 \cdot 5$ multiply left to right $= 14 + 15 - 10$ multiply left to right $= 29 - 10$ add left to right $= 19$ subtract	$8 + (1 + 5)^2 \div 4$ $= 8 + (6)^2 \div 4$ parentheses first $= 8 + 36 \div 4$ exponents $= 8 + 9$ divide $= 17$ add

7) $(2 + 10)^2 \div 4$

8) $72 \div 3 - 5(2.8) + 9$

9) $3 \cdot 14(10 - 8) - 60$

Unit: Knowledge of Algebra, Patterns and Functions
Objective: Determine the unknown in a linear equation with 1 or 2 operations.

Examples:

#1 Solve $x + 5 = 11$	#2 Solve $3x + 2 = 23$
$X + 5 = 11$ write the equation $-5 \quad -5$ subtract 5 from both sides $X = 6$ simplify	$3x + 2 = 23$ write the equation $-2 \quad -2$ subtract 2 from both sides $\frac{3x}{3} = \frac{21}{3}$ simplify divide each side by 3 $X = 7$ simplify

10) Solve $2t + 7 = -1$

11) It costs $12 to attend a golf clinic with a local pro. Buckets of balls for practice during the clinic cost $3 each. How many buckets can you buy at the clinic if you have $30 to spend?

12) An online retailer charges $6.99 plus .55 per pound to ship electronics purchases. How many pounds is a DVD player for which the shipping charge is $11.94?

Unit: Knowledge of Number Relationships and Computation
Objective: Read, write and represent whole numbers using exponential notation.

Examples:

Write 6^3 as a product of the same factor. -base = 6, so the exponent 3 means that 6 is used as a factor 3 times. $6^3 = 6 \cdot 6 \cdot 6$	Evaluate 5^4 -evaluate means to solve $5^4 = 5 \cdot 5 \cdot 5 \cdot 5 = 625$	Write $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$ in exponential form. -base = 4, it is used as a factor 5 times so the exponent is 5. $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^5$

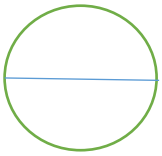
13) Evaluate 7^3.

14) Evaluate 8^4.

15) Write $9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9$ in exponential form.

Unit: Knowledge of Algebra, Patterns and Functions
Objective: Apply given formulas to a problem-solving situation using formulas having no more than three variables.

Examples:

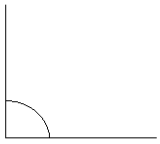
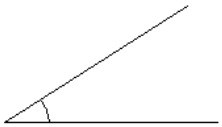
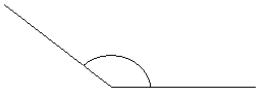
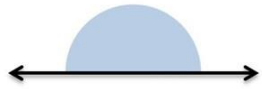
Find the perimeter of the rectangle given the formula $P = 2L + 2W$	Find the area of the circle with a diameter of 2 feet, given the formula $A = \pi r^2$
 8 cm 10 cm $P = 2L + 2W$ $=2(10) + 2(8)$ $=20 + 16$ $=36$ cm	 $A = \pi r^2$ $= 3.14 (2^2)$ $= 3.14 (4)$ $= 12.56 ft^2$

16) Margot planted a rectangular garden that was 18 feet long and 10 feet wide. How many feet of fencing will she need to go all the way around the garden? (P = 2L + 2W)

17) Juan ran all the way around a circular track one time. The diameter (d) of the track is 60 meters. What is the circumference of the circle? ($C = \pi d$)

Unit: Knowledge of Geometry
Objective: Identify and describe angles formed by intersecting lines, rays or line segments.

Examples:

Right Angle	Acute Angle	Obtuse Angle	Straight Angle
 Exactly 90^0	 Less than 90^0	 Between 90^0 and 180^0	 Exactly 180^0

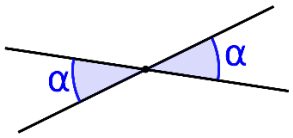
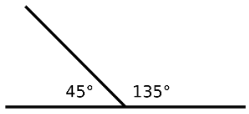
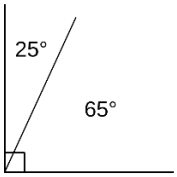
18) What type of angle is formed by a clock when it is 1:00pm?

19) What type of angle is formed by a clock when it is 3:00pm?

20) What type of angle is formed by a clock when it is 7:00pm?

Unit: Knowledge of Geometry
Objective: Identify and describe angles formed by intersecting lines, rays or line segments.

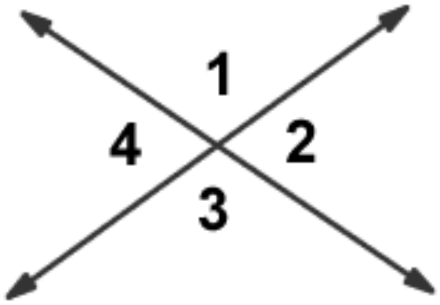
Examples:

Vertical Angles	Supplementary Angles	Complimentary Angles
		
When two lines intersect, they form two pairs of opposite angles called vertical angles, which are always congruent. Congruent angles have the same measure.	Two angles are supplementary if the sum of their measures is 180^0 $45^0 + 135^0 = 180^0$	Two angles are complimentary if the sum of their measure is 90^0 $25^0 + 65^0 = 90^0$

21) Classify the relationship between angles 1 and 3 as complementary, supplementary or vertical.

22) Classify the relationship between angles 1 and 4 as complementary, supplementary or vertical.

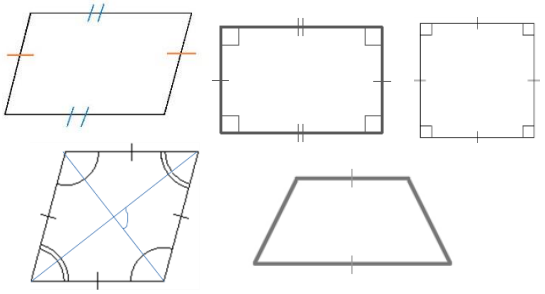
23) Classify the relationship between angles 2 and 3 as complementary, supplementary or vertical.



Unit: Knowledge of Geometry
Objective: Determine a missing angle using the sum of their interior angles in a quadrilateral.

Examples:

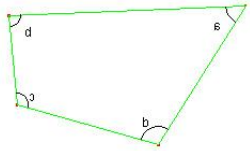
Examples of Quadrilaterals:



The sum of the measures of the angles of a quadrilateral is 360^0

$m\angle 1 + m\angle 2 + m\angle 3 + m\angle 4 = 360^0$

***Find the missing measure in the quadrilateral.**



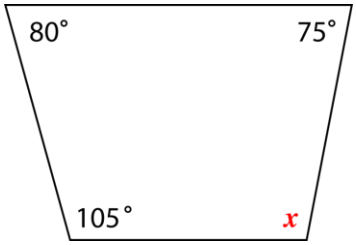
a = 115^0
b = 130^0
c = 35^0
d = ??

115 + 130 + 35 + x = 360 sum of the measures is 360^0
320 + x = 360 simplify
-320 -320 subtract 320 from each side
X = 40

24) The top of Mrs. Hartsock's coffee table is a quadrilateral whose angles measure 60^0, 120^0 and 100^0. What is the measure of the fourth angle?

25) Maria needs to cut a piece of carpet to fit the space near her front door. The space is an odd shaped trapezoid with angles that measure 64^0 with two other angles that are each right angles. What is the measure of the fourth angle?

26)



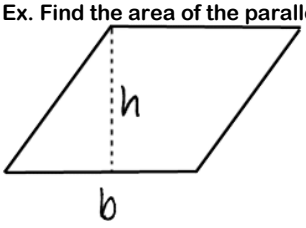
Find the missing measure of the interior angle.

Unit: Knowledge of Geometry
Objective: Determine the area of quadrilaterals using parallelograms or trapezoids.

Examples:

The area A of a parallelogram equals the product of its base b and its height h.

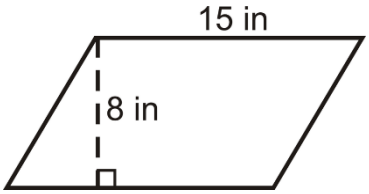
Ex. Find the area of the parallelogram if the base is 6 inches and the height is 3.7 inches.



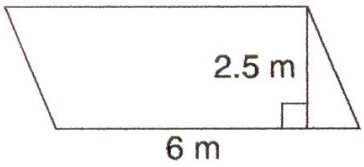
A = bh	Area of a parallelogram
A = 6 • 3.7	replace b with 6 and h with 3.7
A = 22.2	multiply

****Find the area of each parallelogram. Round to the nearest tenth if necessary.**

27)



28)

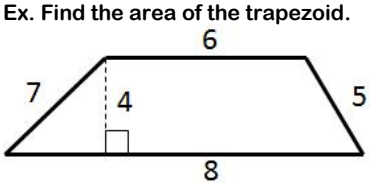


Unit: Knowledge of Measurement
Objective: Determine the area of quadrilaterals using parallelograms or trapezoids.

Examples:

A trapezoid has two bases, b_1 and b_2. The height of the trapezoid is the distance between the two bases. The area A of a trapezoid equals half the product of the height h and the sum of the bases b_1 and b_2.

Ex. Find the area of the trapezoid.

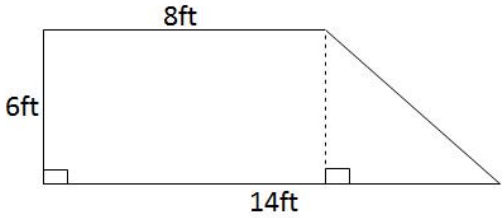


$A = \frac{1}{2} h (b_1 + b_2)$ Area of a trapezoid
$A = \frac{1}{2} (4) (6 + 8)$ replace h with 4, b_1 with 6 and b_2 with 8
$A = 28$

The area of the trapezoid is 28 units squared.

***Find the area of each trapezoid. Round to the nearest tenth is necessary.**

29)



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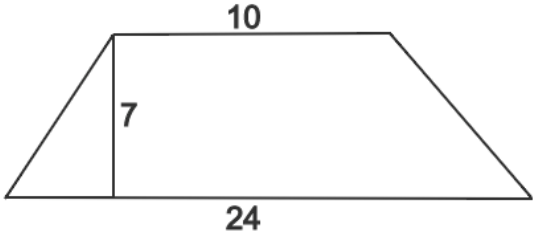
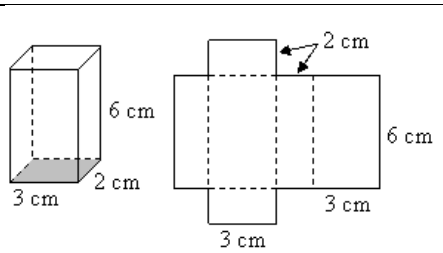


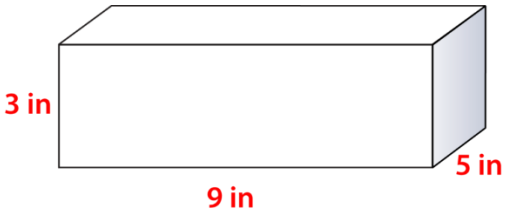
Unit: Knowledge of Measurement
Objective: Determine the surface area of geometric solids using rectangular prisms.

Examples:

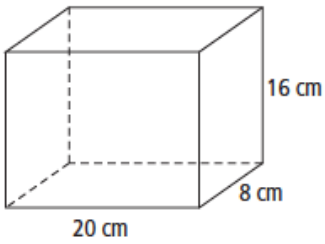
The sum of the areas of all the surfaces, or faces, of a three dimensional figure is the surface area. The surface area S of a rectangular prism with length l, width w, and height h is found using the following formula. **S = 2lw + 2lh + 2wh**	 **S = 2lw + 2lh + 2wh** **S = 2(2•3) + 2(2•6) + 2(3•6)** **S= 2(6) + 2(12) + 2(18)** **S= 12 + 24 + 36** **S= 72 cm²**

***Find the surface area of the rectangular prisms below. Round to the nearest tenth if necessary.**

31)

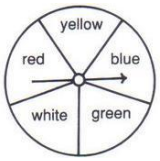


32)



Unit: Knowledge of Probability
Objective: Determine the probability of an event comprised of 2 independent event.

Examples:

*Independent Events: the outcome of one event does not affect the outcome of the 2nd event. *The probability of two independent events can be found by multiplying the probability of the first event by the probability of the second event. *P (A and B) = P(A) • P(B)	A number cube is rolled, and the spinner is spun. Determine the probability of rolling a 2 and spinning red.  P (2 and red) = P(2) x P(red) 1/6 x 1/5 = 1/30 

33) A coin is tossed and a number cube is rolled. What is the probability of tossing heads and rolling a 3 or a 5?

34) One letter is randomly selected from the word PRIME and one letter is randomly selected from the work MATH. What is the probability that both letters selected are vowels?

35) What is the probability of spinning a number greater than 5 on a spinner numbered 1 to 8 and tossing a tail on a coin?

Unit: Knowledge of Number Relationships and Computation
Objective: Determine equivalent forms of rational numbers expressed as fractions, decimals, percentages and ratios.

Example:

Write 19/20 as a percent. -divide the numerator by the denominator 19 ÷ 20 = 0.95 -move the decimal two places to the right 0.95 = 95%	Write 92% as a fraction in simplest form. $\frac{92}{100} \div 4 = \frac{23}{25}$
Write 92% as a decimal -move decimal two places to the left, add zeros if needed 92.0% = 0.92	Write 0.4 as a percent -move decimal two places to the right, add zeros if needed 0.4 = 40%

36) Write 7/25 as a decimal and percent.

37) Write 75% as a decimal and fraction in simplest form.

38) Ms. Crest surveyed her class and found that 15 out of 30 students brushed their teeth more than twice a day. Write the ratio as a fraction in simplest form, then write it as a percent and a decimal.

Unit: Knowledge of Number Relationships and Computation
Objective: Compare, order and describe rational numbers.

Example:

Rational numbers include fractions, decimals and percentages. To compare or order rational numbers, they must be in the same form (all fraction or all decimal or all %s)	*Order 0.6, 48% and ½ from least to greatest. Step 1 – change all to decimals (0.6 48% = 0.48 ½ = 0.5) Step 2 – compare decimals and order (0.48, 0.5, 0.6) Step 3 – Write using original form. (48%, ½, 0.6)

39) Order from least to greatest. 22%, 0.3, 1/5

40) Order from least to greatest. 0.74, ¾, 70%

41) According to the Pet Food Manufacturer's Association, 11 out of 25 people own large dogs and 16 out of 50 own medium dogs. Do more people own large or medium dogs?

Unit: Knowledge of Number Relationships and Computation
Objective: Add, subtract, multiply and divide integers.

Example:

Addition Integer Rules: Same Sign: -the sum of two positive integers is positive -the sum of two negative integers is negative For integers with different signs, subtract their absolute value. The sum is: -positive if the positive integer has the greater absolute value -negative is the negative integer has the greater absolute value	Subtraction Integer Rules: -keep the first number the same -switch the operation to addition -change the second number to its opposite (opposite of -6 = 6) -follow addition rules
-6 + (-3) = add, keep the sign = -9 -34 + (-21) = add, keep the sign = -55 8 + (-7) = subtract, keep the higher sign = 1 -5 + 4 = subtract, keep the higher sign = -1	6 – 9 = 6 + (-9) = -3 -3 – 7 = -3 + (7) = -10 -10 – (-12) = -10 + 12 = 2 1 – (-2) = 1 + 2 = 3

42) Evaluate a – b if a = -2 and b = -7

43) Evaluate x + y + z if x = 3, y = -5 and z = -2

44) Write an addition expression to describe the skateboarding situation. Then determine the sum. Hank starts at the bottom of a half pipe 6 feet below street level. He rises 14 feet at the top of his kick turn.

Unit: Knowledge of Number Relationships and Computation
Objective: Add, subtract, multiply and divide integers.

Example:

Multiplying and Dividing Integer Rules **-two integers with different signs, the answer is negative** **-two integers with same signs, the answer is positive**	**5 (-2) = 5 times -2, the signs are different so the answer will be negative = -10** **(-6) x (-9) = the signs are the same so the answer will be positive = 54**

45) Evaluate -3ac if a = -3 and c =5

46) A computer stock decreased 2 points each hour for 6 hours. Determine the total change in the stock value over the 6 hours.

47) A submarine descends at a rate of 60 feet each minute. How long will it take it to descend to a depth of 660 feet below the surface?

Unit: Knowledge of Number Relationships and Computation
Objective: Add, subtract and multiply positive fractions and mixed numbers.

Example:

To add unlike fractions, fractions with different denominators, rename the fractions so there is a common denominator.	**$\frac{1}{6} + \frac{2}{5} = \frac{5}{30} + \frac{12}{30} = \frac{17}{30}$**

48) A quiche recipe calls for 2 ¾ cups of grated cheese. A recipe for quesadillas requires 1 ½ cups of grated cheese. What is the total amount of grated cheese needed for both recipes?

49) You want to make a scarf and matching hat. The pattern calls for $1\frac{7}{8}$ yards of fabric for the scarf and 2 ½ yards of fabric for the hat. How much fabric do you need in all?

Unit: Knowledge of Number Relationships and Computation
Objective: Add, subtract and multiply positive fractions and mixed numbers.

Example:

To subtract unlike fractions, fractions with different denominators, rename the fractions so there is a common denominator.	**$\frac{7}{8} - \frac{1}{2} = \frac{7}{8} - \frac{4}{8} = \frac{3}{8}$**

50) 2/3 – 1/6 =

51) $5\frac{3}{8} - 4\frac{11}{12}$ =

Unit: Knowledge of Number Relationships and Computation
Objective: Add, subtract and multiply positive fractions and mixed numbers.

Example:

*To multiply fractions, multiply the numerators and denominators. *Be sure to change mixed numbers to improper fractions before multiplying.	$1\frac{1}{3} \times 3\frac{2}{5} = \frac{4}{3} \times \frac{17}{5} = \frac{68}{15} = 4\frac{8}{15}$

52) Anna wants to make 4 sets of curtains. Each set requires 5 ½ yards of fabric. How much fabric does she need?

53) One sixth of the students at a local college are seniors. The number of freshman students is 2 ½ times that amount. What fraction of the students are freshman?

Unit: Knowledge of Number Relationships and Computation
Objective: Determine equivalent ratios.

Example:

*Any ratio can be written as a fraction. To write a ratio comparing measurements, such as units of length or units of time, both quantities must have the same unit of measure. *Two ratios that have the same value are equivalent ratios.	*A proportion is an equation stating that 2 ratios are equivalent. Since rates are types of ratios, they can also form proportions. *In a proportion, a cross product is the product of the numerator of one ratio and the denominator of the other ratio.
Write 40 centimeters to 2 meters as a fraction in simplest form. $\frac{40\text{ cm}}{2\text{m}} = \frac{40\text{ cm}}{200\text{ cm}} = \frac{\div 40}{\div 40} = \frac{1\text{ cm}}{5\text{ cm}} = \frac{1}{5}$	Determine whether 2/3 and 10/15 form a proportion (are equivalent ratios) $\frac{2}{3} \stackrel{?}{=} \frac{10}{15}$ $2 \times 15 = 3 \times 10$ $30 = 30$ The cross products are equal, so the ratios are equivalent and form a proportion.

54) Write the ratio as a fraction in simplest form.
*remember, ratios must have the same measurements

12 feet: 10 yards

55) Determine whether the pair of ratios is equivalent and forms a proportion.

$\frac{\$2.48}{4\text{ oz}} \stackrel{?}{=} \frac{\$3.72}{6\text{ oz}}$

56) In baseball, David has 10 hits out of 14 at bats. Adam has 15 hits out of 21 at bats. For each player, write a ratio that represents his total number of hits out of times at bat. Are these ratios equivalent?

Unit: Knowledge of Number Relationships and Computation
Objective: Determine or use ratios, unit rates and percentages in the context of the problem.

Example:

*A rate is a fixed ratio between two quantities of different units, such as miles and hours, dollars and hours, points and games. If the second number of a rate is 1 then the rate is called a Unit Rate. *Unit Rate examples: 60 miles per hour or $15 per hour	Last week Mike worked 30 hours and earned $240. What was his rate of pay? *Divide the total earned by the numbers of hours -How much money did Mike earn? ($240) -How many hours did he work? (30 hours) -determine the rate of pay -divide the amount of money earned by the # of hours $\frac{\text{Amount of \$}}{\text{hours worked}} = \frac{240}{30} = \$8$	The unit price of a can of tuna fish at the GHK Supermarket is $2.43. How much will 7 cans cost? *Use the definition of unit price. -Unit price means the price of one unit or the price of one can of tuna fish ($2.43 each) -multiply ($2.43 x 7 = $17.01) Seven cans of tuna fish cost $17.01.

57) Chad purchased 6 Fierce Grape Gatorades for $12.00. If Chad wanted to go back and buy one Tropical Punch Gatorade at the same price, how much would it cost?

58) Your family was headed to the beach for summer vacation. You drove 560 miles in 8 hours. Determine how many miles you drove per hour.

59) Giant Eagle was having a big 4th of July sale on sodas. Giant Eagle was selling Coke Fridge Packs at $3.00 for 12 sodas. Determine the cost of one soda.

Unit: Knowledge of Number Relationships and Computation
Objective: Determine or use ratios, unit rates and percentages in the context of the problem.

Example:

Solving Proportions $\frac{8}{a} = \frac{10}{15}$ $8 \times 15 = a \times 10$ $120 = 10a$ $120 \div 10 = 10a \div 10$ $12 = a$	Sometimes proportions involve percentages. In this case, we use the percent proportion. $\frac{\%}{100} = \frac{\text{part (is)}}{\text{total(of)}}$	Chad's football team played 25 games. They won 68% of them. How many games did the team win? $\frac{68\%}{100} = \frac{x}{25}$ $68 \times 25 = 100x$ $\frac{1700}{100} = \frac{100x}{100}$ $X = 17$

60) It is recommended that for every 8 square feet of surface, a pond should have 2 fish. A pond that has a surface of 72 square feet should contain how many fish?

61) An 8-ounce glass of Orange juice contains 72 milligrams of vitamin C. How much juice contains 36 milligrams of vitamin C?

62) Jake's club has 35 members. Its rules require that 60% of them must be present for any vote. At least how many members must be present to have a vote?

Unit: Knowledge of Number Relationships and Computation
Objective: Determine rate of increase and decrease, discounts, simple interest, commission and sales tax.

Example:

Sales Tax	Commission
-is a percent of the purchase price and is an amount paid in addition to the purchase price. Determine the total price of a $17.55 soccer ball if the sales tax is 6%. -change the percent to a decimal and multiply -add price and tax to determine the total price 17.55 x 0.06 = 1.07 (tax) 17.55 + 1.07 = 18.82	-is the amount a salesman makes for selling items. To determine the amount of commission, change the % to a decimal and multiply by the total amount sold. Determine the commission for a RV salesman, whose sales for the month of March totaled $149,000. The salesman earns a 4% commission. -change the percent to a decimal -multiply decimal and total sold 0.04 x 149,000 = $5960

63) Jeremy wants to buy a skateboard but does not know if he has enough money. The price of the skateboard is $85 and the sales tax is 6%. What will be the total cost of the skateboard?

64) Blake bought two magazines for $4.95 each. If the sales tax was 6.75%, what was the total amount that he paid for the magazines?

65) A car salesman earns 7% commission on his total sales this month. If he sells 2 cars at $15,670 each and a truck at $25,995, how much commission will he earn? (hint: find total sales first)

Name_____

8th Grade Summer Math

Answer Sheet

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