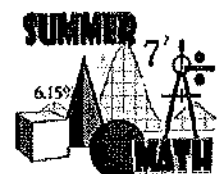Summer Packet

Mathematics

Entering 8th Grade

**Return this completed packet to your new teacher
on the first day of school in September.**

Student Name:_____ Grade: _____
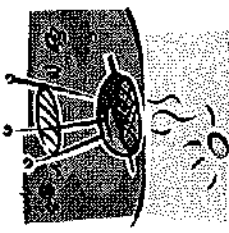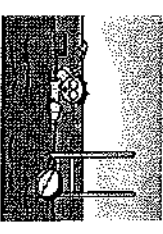
THE NEWARK PUBLIC SCHOOLS
McKinley Elementary School
1 Colonnade Place, Newark, New Jersey 07104
Phone: 973-268-5270 ~ Fax: 973-350-5719
Jessica Silva-Olmo, Principal

Entering Grade 8

Monday	Tuesday	Wednesday	Thursday	Friday
Monday July 3rd — Write an expression for the sequence of operations. 1. Add 3 to X, subtract the result from 1, then double what you have. 2. Add 3 to X, double what you have, then subtract 1 from the result.	**Tuesday July 4th** — Happy July 4th ☆★ Vacation Day	**Wednesday July 5th** — The volume of a liquid is x liters. When five-eighths of the liquid are poured into a container, the container is two-thirds full. What is the volume of the container?	**Thursday July 6th** — Alex has $44x. He bought y sets of dishes. Each set of dishes costs $32. a. Write an algebraic expression for the amount of money he has now. b. Factor the expression.	**Friday July 7th** — Each pencil costs x cents and each eraser costs y cents. What is the total cost, in dollars, of 10 pencils and 12 erasers?
Monday July 10th — Graham spent a total of $7.25 on 8 oranges and a packet of strawberries. If a packet of strawberries cost $2.85, how much did each orange cost?	**Tuesday July 11th** — The sum of the interior angle measures of a triangle is 180 degrees. Angle b is three time the measure of angle a. Angle c is 52 degrees. Find the value of x.	**Wednesday July 12th** — Vacation Day 1	**Thursday July 13th** — Solve the following equation: $7.4r - 9 - 2r = 18$	**Friday July 14th** — Solve the following inequality: $5(3x - 2) > 2 + 3x$
Monday July 17th — The length of a rectangular poster is 7 inches more than twice its width. Find the length of the poster if its perimeter is 110 inches.	**Tuesday July 18th** — Nelson Mandela International Day — Vacation Day	**Wednesday July 19th** — National Hot-Dog Day — Vacation Day	**Thursday July 20th** — A family purchased tickets for a concert. They paid a total of $90 for 7 adult tickets and 12 child tickets. The price of a child ticket was two-thirds the price of an adult ticket. How much was the price of an adult ticket?	**Friday July 21st** — The cost of a piece of ribbon, c, is directly proportional to the length of the ribbon, r. The cost of 8 meters of ribbon is $5.60. a. Find the cost per meter of the ribbon. b. Write an equation relating c and r. c. Find the value of c when r is 9.

Monday July 24th	Tuesday July 25th	Wednesday July 26th	Thursday July 27th	Friday July 28th
Order the real numbers from least to greatest. Use the < symbol. -16.34, 2π, $148/9$, 16, $-\sqrt{266}$	A car can travel 57 miles on 3 gallons of gas. A. How many gallons of gas does the car need to travel 152 miles? B. How many miles can it travel on 5 gallons of gas?	$(4p - 5)$ pears and $(8a + 9)$ apples are divided into 12 baskets equally. How many fruits are in each basket? Simplify your answer.	Vacation Day 2	The rental fee for a conference room is $35 for the first hour and $7 for each additional hour. Hillary has a budget of $65 for renting the conference room. For how many hours can Hillary rent the conference room?

Monday July 31st
Vacation Day 3

McKinley Mustangs Core Values

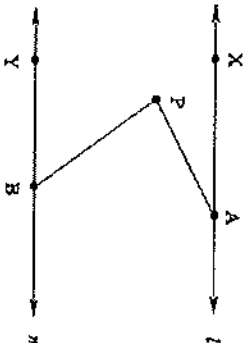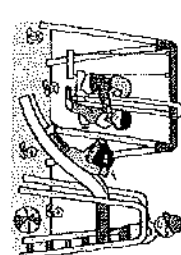*Respect ~ Integrity ~ Perseverance ~ Excellence ~ Responsibility*

Entering Grade 8

Welcome to your August Calendar!
Remember to check ALL YOUR work!

Tuesday August 1st	Wednesday August 2nd	Thursday August 3rd	Friday August 4th
In the picture below, lines *l* and *m* are parallel. The measure of angle ∠PAX is 31°, and the measure of angle ∠PBY is 54°. What is the measure of angle ∠APB ?	A cylindrical bottle full of just has a base radius of 3 inches and a height of 10 inches. The bottle tipped over and some juice spilled out. Now the bottle is only ⅔ full. How many cubic inches of juice spilled out? Use 3.14 as an approximation for pi.	The weight, in pounds, of 8 different pumpkins are 15, 29.5, 10, 25, 34.5, 20, 30 and 42. Find the mean weight of the pumpkins.	Find the mean absolute deviation of the following numbers: 53, 39, 40, 42, 36, 58, 49, 55, 44, 51

Monday August 7th	Tuesday August 8th	Wednesday August 9th	Thursday August 10th	Friday August 11th
Vacation Day 4	You pick a number between 20 and 50. What are the favorable outcomes for the event of picking a number that is divisible by 8?	Olga buys tickets to a concert. She pays $27.75 for each ticket plus a handling fee of $5.50 for the order. The total cost is $144.25. How many tickets, *n*, did Olga buy?	Jamie is making bracelets using black and red beads. She uses 6 black beads for every 4 red beads. Represent the number of black beads for any given number of red beads using a table, graph, and an equation. Identify the constant of proportionality.	*International Youth Day* Vacation Day

McKinley Mustangs Core Values
Respect ~ Integrity ~ Perseverance ~ Excellence ~ Responsibility
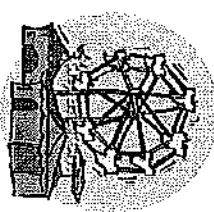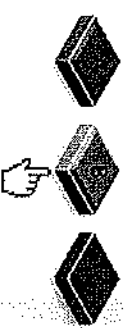
Monday August 14th	Tuesday August 15th	Wednesday August 16th	Thursday August 17th	Friday August 18th
In the figure below, lines g and h are parallel, and line m is a transversal If m∠ = 94°, what is m∠3	If m∠A + m∠B + m∠C = 230° and m∠E = 70°, what is m∠D?	In the figure below, lines g and h are parallel, and line m is a transversal. If m∠1 = 107°, what is m∠6?	Abigail mixed 2 cups of white paint with 6 tablespoons of blue paint. Which of the following statements describes this situation? a. There is 1 cup of white paint for every 3 tablespoons of blue paint. b. The ratio of the number of cups of white paint to the number of tablespoons of blue paint is 1:3. c. There are 3 tablespoons of blue paint per cup of white paint. d. For each tablespoon of blue paint there are 3 cups of white paint.	Denver, Colorado is called "The Mile High City" because its elevation is 5280 feet above sea level. Someone tells you that the elevation of Death Valley, California is -282 feet. a. Is Death Valley located above or below sea level? Explain. b. How many feet higher is Denver than Death Valley? c. What would your elevation be if you were standing near the ocean?

Monday, August 21st	Tuesday, August 22nd	Wednesday, August 23rd	Thursday, August 24th	Friday, August 25th
A flea is jumping around on the number line. 0 1 a. If he starts at 1 and jumps 3 units to the right, then where is he on the number line? How far away from zero is he? b. If he starts at 1 and jumps 3 units to the left, then where is he on the number line? How far away from zero is he? c. If the flea starts at 0 and jumps 5 units away, where might he have landed? d. If the flea jumps 2 units and lands at zero, where might he have started? e. The absolute value of a number is the distance it is from zero. The absolute value of the flea's location is 4 and he is to the left of zero. Where is he on the number line?	In a poll of Mr. Briggs's math class, 67% of the students say that math is their favorite academic subject. The editor of the school paper is in the class, and he wants to write an article for the paper saying that math is the most popular subject at the school. Explain why this is not a valid conclusion and suggest a way to gather better data to determine what subject is most popular.	Vacation Day 5	You are playing a video game. At the end of every level, there are three boxes. One contains 10,000 points, and the other two are empty. You are allowed to choose one of the boxes, but before the one you choose opens, one of the other boxes always opens to show that it is empty. The game allows you to either (1) stay with your first choice or (2) switch to the other unopened box. For example, there are three boxes, A, B, and C. Suppose you choose box B:	*National Dog Day* Vacation Day
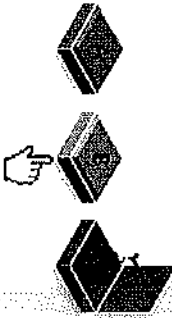
Before box B opens, one of the other boxes opens to show that it is empty. Imagine that in this case it is box C.

The game allows you to stay with your first choice or to switch to the other unopened box.

Should you stay or should you switch?

? ?

McKinley Mustangs Core Values

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Monday August 28th

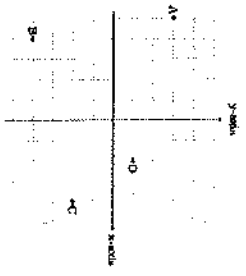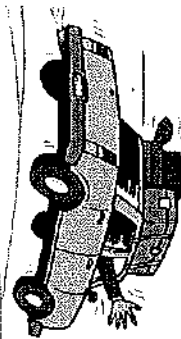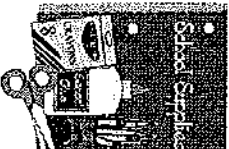a. Find the coordinates of the points.

b. Reflect the points over the x-axis and find the coordinates of the new points: label the reflection of point A as A', the reflection of B as B', the reflection of C as C', and the reflection of D as D'.

c. Reflect the points from (b) over the y-axis: label the reflection of point A' as A", the reflection of B' as B", the reflection of C' as C", and the reflection of D' as D".

d. How do the points A", B", C", D" from (c) relate to the points A, B, C, and D?

Tuesday August 29th

One morning the temperature is −28° in Anchorage, Alaska, and 65° in Miami, Florida. How many degrees warmer was it in Miami than in Anchorage on that morning?

Wednesday August 30th

LAST Vacation Day 6

Thursday August 31st

Get READY for school!

McKinley Mustangs Core Values
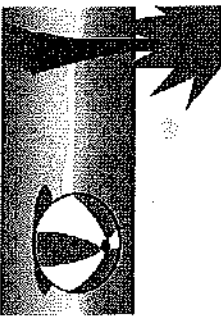*Respect ~ Integrity ~ Perseverance ~ Excellence ~ Responsibility*

Directions: Please use the dates provided to answer all rich tasks.

Monday, July 3rd	Tuesday, July 4th	Wednesday, July 5th
	Happy July 4th Vacation Day	

Thursday, July 6th	Friday, July 7th	Monday, July 10th

McKinley Elementary School
Jessica Silva-Olmo, Principal

Tuesday, July 11th

Wednesday, July 12th

Vacation Day 1
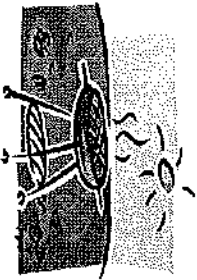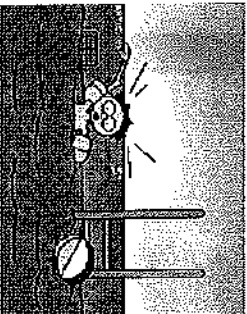
Thursday, July 13th

Friday, July 14th

Monday, July 17th

Tuesday, July 18th

Nelson Mandela International Day

Vacation Day

McKinley Elementary School
Jessica Silva-Olmo, Principal

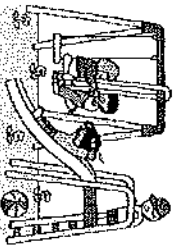| Wednesday, July 19th	Thursday, July 20th	Friday, July 21st
Vacation Day *National Hot-Dog Day*		

Monday, July 24th	Tuesday, July 25th	Wednesday, July 26th

McKinley Elementary School
Jessica Silva-Olmo, Principal

Thursday, July 27th	**Friday, July 28th**
Vacation Day 2	
Monday, July 31st	
Vacation Day 2	

Tuesday, August 1st	**Wednesday, August 2nd**	**Thursday, August 3rd**

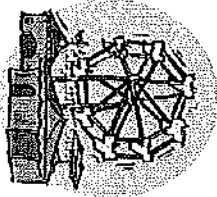# McKinley Elementary School
Jessica Silva-Olmo, Principal

Monday, August 7th

Vacation Day 4

Friday, August 11th

International Youth Day

Vacation Day

McKinley Elementary School
Jessica Silva-Olmo, Principal

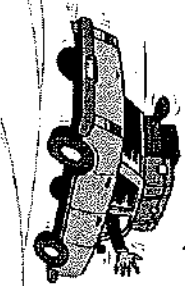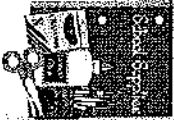| Monday, August 14th	Tuesday, August 15th	Wednesday, August 16th

Thursday, August 17th	Friday, August 18th	Monday, August 21st

McKinley Elementary School
Jessica Silva-Olmo, Principal

Tuesday, August 22nd

Wednesday, August 23rd

Vacation Day 5

Thursday, August 24th

Friday, August 25th

National Dog Day

Monday, August 28th

Tuesday, August 29th

McKinley Elementary School
Jessica Silva-Olmo, Principal

Wednesday, August 30th

LAST Vacation Day 6

Thursday, August 31st

Get READY for school!